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ABSTRACT

This document provides extensive procedural detail for the design and execution of a needs analysis/feasibility study survey and the resulting 6-day experimental demonstration project of information and instructional programming (called Cablexpo), which was presented over two of the University of Iowa's five cable television access channels. The study, which was designed following an analysis of the underutilization of the cable channels in terms of Roger's model of innovation in organizations, is first explained thoroughly. Separate sections provide an overview, study rationale, terms and definitions, and research questions addressed. An extensive literature review addresses the innovation process, resistance to change in education, strategies for innovation, and broadband cable technology at educational institutions. The chapter on procedures covers details of the design, operation, and evaluation of Cablexpo. Findings are reported and discussed for the project as a showcase and feasibility study, and as a planned strategy to modify attitudes. Recommendations are made for the future development and implementation of the university's access channels. A 105-item bibliography and 49 tables and figures are provided. Appendices contain the survey instruments; newsletters and correspondence; media clippings; the Iowa State University Cable TV Committee final report and recommendations; budgets and balance sheet; and the Human Subjects in Research Committee approval. (Author/LMM)

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A university's first use of its cable television access channels

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by

Gregory Epler-Wood

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DEDICATION

To the forty-eight Cablexpo pioneer producers who shared in history. May their example inspire all those who have something to say to use this new, free and powerful medium.

PREFACE

This study was a strategy designed to influence the adoption of an innovation at a university. The technique employed was essentially a demonstration experiment, entitled Cablexpo, which included a limited needs assessment and publicity campaign.

Although not classically experimental in its design, a panel survey was conducted among several segments of the University population. In this manner, changes in opinions and interest levels, and possible factors contributing to these changes, were documented.

The study also relied on personal interviews, objective analyses of events occurring during the project, and a limited content analysis of background history of the University in order to better understand the perception of cable television by its members.

Thanks and appreciation should go to these students who assisted as staff volunteers to the Cablexpo effort: Michael Cummings, Dann Veldkamp, Jamie Kaestner, Michael Miller, Rich Robbins, Sue Schmitt, Paul Bundy, Fritz Nordengren, Tom White, Marge Fowler, Karen Gibson, Rex Reeve, Bill

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CHAPTER I. INTRODUCTION

Overview

This chapter is designed to provide the reader with selected background information that will establish the need and purpose for this study.

The section Need for the Study gives three principal reasons this study is relevant: (1) current pressures on educational institutions, (2) resistance to change and technological innovation on the part of educators, and (3) circumstances specific to Iowa State University. A list of terms and definitions is included to clarify some of the technical language contained in this document.

The chief problems of this project are then addressed, followed by a statement of its purpose. Following the statement of purpose, there is a detailed rationale for the approach taken by the researcher in the planning and subsequent execution of the study.

Need for the Study

It has always been important for universities to be at the forefront of the development and utilization of a wide range of technology. As the nation becomes more reliant on the production and transfer of information rather than the manufacture of hard goods, educational institutions should explore methods, techniques and strategies by which to facilitate the expansion and modernization of their curricula, physical plants, and delivery of instruction.

When it was noticed that Iowa State University had access to cable television and could explore its potential, the idea for this study began to take shape. Preliminary background research into why the University had not yet availed itself of the opportunity revealed evidence that certain characteristics of the innovation itself might be slowing cable's adoption. Thus, the study was undertaken because there was a need to change misperceptions about cable television and to provide information on the feasibility of using it in a variety of ways beneficial to both the University and higher education.

Pressures and demands on education

The institutions of higher learning which have traditionally met most of the needs of the American people for the past century and a half are in the midst of a vast and vital re-evaluation of their role and methods. In contradiction to predictions that enrollment would fall after the post-war children graduated, public-supported institutions of higher learning are seeing increasing enrollments for two reasons: (1) students are moving away from the more expensive private institutions, and (2) students are staying in school longer because employment possibilities are fewer (Fiske, 1982).

Compounding this development are state reductions in municipal taxation brought about by such referenda as Propositions 13 in California and "2-1/2" in Massachusetts, and the drastic cuts in education appropriations from the federal government.

These are not the only pressures, for as technology becomes more sophisticated (and growing at a rate much faster than schools are able to react), private businesses and corporations are picking up the slack to offer their employees remedial, supplemental and even accredited graduate level education that they either failed to get, or could not get, through traditional educational channels. By recent estimates (Maeroff, 1981; Brickell and Aslanian, 1981), these white-collar trade schools will continue to grow.

These unfortunate circumstances greatly restrict education's capability to expand and modernize; however, many still see in our educational system a hope of meeting another need that was created by an altogether different development. Marc Porat (1978) has written much to popularize the notion that America has shifted away from an industrially-based economy to an "information society." That knowledge rather than hard goods was rapidly becoming a major product of this country was recognized at least as early as 1962 by Fritz Machlup. But as researchers discovered the "hard core of know-nothings" in our society (Robinson, 1967 and Tichenor, 1975) and documented the widening information gap between them (the information poor) and the well-educated (the information rich), the importance of access to information as a source of power has been of increasing concern.

As writer Ralph Lee Smith has observed (Smith, 1979), not only is the amount of information needed for an individual or business to retain control of what power it holds over its own destiny increasing, but so is the complexity and degree of knowledge and skill needed to access that new information. John Witherspoon, of the Public Service Satellite Consortium and Frank Norwood, of the Joint Council on Educational Telecommunications state (Witherspoon and Norwood, c. 1979):

> Criteria for personal success must include more strongly than ever: the ability to formulate a clear, pertinent question; an understanding of the techniques for locating and acquiring information; and the ability to evaluate and integrate the elements of available information.

The National Science Foundation-sponsored Presidential Report Science and Engineering Education for the 1980's and

Beyond (Hufstedler and Langenberg, 1980) predicts that the United States' shortage of engineers and scientists will be prolonged, and worse, that we will soon find ourselves a technologically illiterate society. The report urged the NSF to encourage the development of software for classroom computers and the Department of Education to encourage schools to use it. It also urged schools to utilize video technology, classroom television and other technologies to educate students.

Thus, circumstances imply that our schools should become more flexible in their offerings and more efficient in their day-to-day operations. Moreover, one direction that should be considered is through intensive use of the new communication technologies.

It is reasonable to assume that the field of education is a major U.S. industry (its 1979 aggregate gross income was $166 billion [National Center for Educational Statistics, 1980]). Its traditionally low rating in per-employee production might be accounted for, at least in the opinion of such people as Curtis and Biedenback (1979) and Deringer (1981), by the fact that education is the only major industry which doesn't utilize modern technology to reduce costs and increase the scope of its services.

The modernization to which these writers make reference encompasses more than strictly the delivery of instruction.

All campuses require a physical plant of some sort to support their community of people, and all have many of the same environmental concerns for its personnel as most municipalities have for their citizens. Here too, utilization of new communication technologies, namely broadband coaxial cable transmission of electromagnetic signals, could improve not only the character, but also the quality of life. It is, therefore, in two areas of need--instruction and management of the plant which supports that instruction--where an institution's educational mission lies. Broadly speaking, these can be considered as the instructional and informational needs of a university.

Witherspoon and Norwood (c. 1979) list four problem areas of informational and instructional needs to which a telecommunication system can respond:

1. The pressure to offer equal service to all students, regardless of where they live
2. The increasing burden related to the flow of administrative information
3. The conflicting pressure for improvement of quality and containment of costs
4. The need to respond quickly to events, to keep curricula and materials up-to-date, and to provide effective materials for teachers' in-service experience.

A comprehensive analysis and discussion of specifically how the new technologies can contribute to a modernization of our educational system is beyond the purview of this paper. However, it would be useful to broadly summarize a list of those applications which either have proven effective on university campuses, or have shown considerable promise through actual use in other arenas. The list (Figure 1) has been separated into on- and off-campus applications in order to reflect cable's capability to service both areas.[1]

Large scale modernization is currently a moot argument at most educational institutions. Nonetheless, initial strides can be taken in many non-capital intensive ways. A six-month feasibility study sponsored by the Joint Council on Educational Telecommunications (Marquis, 1980) recommends that advantage be taken of the current cable boom to establish stronger ties between educators and the cable industry. The report states that to bring telecommunications services immediately up to a reasonable level of nationwide service to education would require an infusion of about $329 million in new funds. However, as an interim strategy, they recommend that higher education develop low-cost, cooperative liaisons with business, government, libraries, manufacturers, publishers and cable systems. In this way, the study says, funding could be later found.

The U. S. Department of Education predicts that the use of telecommunications in public education will increase

ON CAMPUS

- Instruction:
  - Audio and/or Video programming (live and/or videotaped)
  - Computer-assisted individualized instruction*
- Information:
  - (Instructional Support)
    - Audio and/or Video programming
    - Remote computation*
    - Data base access*
    - Word processing*
    - Facsimile
    - Intercom*
    - Conferencing*
    - Records management*
  - (Remote Switching)*
    - Security
    - Fire
    - Energy control
    - Experimental research control
  - (Entertainment/General Information)
    - Commercial/non-commercial broadcast television
    - Campus news, sports, extra-curricular activities, performances, etc.
    - Alpha-numeric (electronic billboard)

OFF CAMPUS

- Instruction:
  - Credit/non-credit courses (Fee-based, with or w/o addressable signal)
- Information:
  - (Instructional Support)
    - Conferencing
  - (Entertainment/General Information)
    - Outreach and publicity programs
    - Sports and special events
    - Extension farm and business support*
    - Alpha-numeric (electronic billboard)

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*Normally necessitates some form of two-way capability.

Figure 1. Broadband technology applications currently available to some universities.

dramatically in this decade (Zucker, 1980-1981). Six reasons are mentioned to account for this increase:

1. Improvements in telecommunications technology
2. Consumer acceptance of electronics generally
3. Demographic factors
4. New educational needs and wants
5. Tighter budgets for education
6. A desire for educational reform.

All indications are that it would be advisable for colleges and universities to take immediate advantage of every opportunity to acquaint themselves, their staff and faculty with the new technologies.

Resistance to change in education

Education consultant Bert Cowlan (Curtis and Biedenback, 1979) states "From innovation to implementation generally takes seven years, except in education where it takes forty." With the low adoption rate of new approaches, methods and technologies, it is rare indeed to find a quickly-occurring "fit" between an innovation and a teaching staff. It was for this reason that this researcher envisioned a need to overcome a certain amount of resistance to cable television.

In the adoption of any innovation, there are factors which impede the decision-making process for the individual or group. Sometimes the impediments are structural, other times circumstantial and related to the perception of the innovation by the individual. In all cases, it is necessary to analyze the situation, identify these factors, and mitigate them with planned strategy.

Circumstances at Iowa State University

Even taking into account the traditional amount of resistance to many technological innovations in education, cable television has been extremely slow in catching on (as will be documented below)--not only at Iowa State University, but also at colleges and universities across the United States. What exactly is the problem with cable in education? What are the origins of the resistance, if any, to it? Might cable be a victim of its own circumstances?

At Iowa State University in particular, there are five distinct circumstances which justify the need for this study. These are: (1) misperceptions of cable television, (2) ISU's educational mandate, (3) oversubscription in classes, (4) inter-campus communications, and (5) possible loss of access channels. Each one will be discussed in turn.

Misperceptions of cable television

The setbacks suffered by cable at ISU during the past few years may have been the result of misperceptions of the five characteristics which Rogers and Shoemaker (1971) say determine an innovation's rate of adoption: relative advantage, compatibility, complexity, trialability and observability of results. Only two major sources of documentation exist for the period February 1974 to December 1979 which can be used to support this argument: the minutes and correspondence of the ad hoc ISU Cable Television Committee,[2] and news articles appearing in the *ISU Daily*. While not published, information garnered by this researcher from personal interviews with key individuals is also introduced wherever relevant.

Little perceived relative advantage According to Rogers, relative advantage is the degree to which an innovation is perceived as being better than the idea it supersedes. Basic to determining how much relative advantage is perceived is knowing the level of familiarity with, or knowledge about, the innovation that there is with the adopter. Let's look first at the ISU Cable Committee and see if there are any indications that there were misperceptions or lack of understanding at the University which may have affected its perception of cable television as regards its relative advantage.

According to its final report and recommendations, the committee decided that its mission was "to determine the role cable television would have on campus" (see Appendix D, *Final Report and Recommendations*, p. 1); however, only once in its existence (10 October 1979) was there any action taken or public statement made by a committee member which resulted in a detailed discussion about the potential uses for cable technology at ISU. Unfortunately, the committee was not given the money nor the explicit mandate to assess need and interest at the University. As a result, it perceived its mission as "...to identify priorities governing the use of cable TV...to specify locations for the five drops..." and to decide on administrative matters for "one origination channel...." (Appendix D.)

The committee's perception of cable to have little relative advantage can be exemplified with two items in its final report. One is the strong impression given by a number of recommendations that one access channel would be primarily utilized as a broadcast laboratory for Journalism and Telecommunicative Arts students. The other is Recommendation Nine which states that cable TV programming should be devoted, first, to improving the quality of instruction, and only secondarily as a device for cost-effective efforts. In and of themselves, there is nothing wrong with these two recommendations. However, in the broader context of comprehensive broadband telecommunication planning and the current needs of the University, they reflect a limited perception of how cable television can benefit the school.

The committee felt that an access channel would provide laboratory experiences for TCA students. Few additional uses of cable were considered, and in fact the committee's mission statement indicated a present need of only one video channel. This might be considered presumptuous considering a needs assessment was not done. Recommendation number eight locates this channel in Exhibit Hall, calls it the "Communications Center," suggests programming for it, and gives the strong impression that the Telecommunicative Arts students would be given the day-to-day responsibility for its operation. In effect, the committee has recommended that the access channel might function as a non-commercial educational station. The major difference would be that it would be programmed by students in Journalism and Telecommunicative Arts rather than by a paid, professional staff.

While the committee gives a fairly detailed description of how this one access channel would be utilized, it stops short of pursuing possibilities for the others ("Remaining channels will be phased in as the need dictates" and "Assign to the Computation Center responsibility for investigating the feasibility of using an additional origination channel for remote computation").

Although the need to find an alternative to the WOI-TV facilities is a real one to those in Journalism and Telecommunicative Arts, the argument is certainly not strong enough to demonstrate cable's relative advantage to the University as a whole. To fiscal planners, this need certainly is not the "squeakiest wheel," and so there is little logic in spending money which would only benefit the relative few in these academic areas. The recommendations for the other access channels are too vague and lack sufficient detail to justify further developmental activity.

Perhaps the recommendation which best exemplifies the committee's perception of cable as having little relative advantage is number nine which states that cable TV programming should be devoted, first, to improving the quality of instruction, and only secondarily as a device for cost-effective efforts. This item was added by the committee's chairman to allay fears that cable would place teacher's jobs in jeopardy (Kent, July 1980). This is a legitimate concern, but the fact that nowhere else in the document can be found any mention of how cable could be cost-effective without affecting teacher's jobs, severely limits its usefulness in convincing administration that cable television is indeed worth some capital investment.

The committee's recommendations, therefore, neither demonstrate that the committee itself saw any real advantage in developing cable, nor are they useful in convincing others to do so. Rather, they show cable to be an educational frill--one which would add to the cost of instruction, rather than as a tool with which to modernize and increase the efficiency of the University. Predictably, if cable is presented as a way of doing things that are already being done adequately in other ways, or for doing things that do not address a particular and definite need, its perceived relative advantage will be low indeed.

Low perceived compatibility Rogers defines compatibility as the degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of the receivers. Something that happened at ISU's sister university to the east, the University of Iowa, can serve to demonstrate that cable television is often misperceived as incompatible with education.

In February 1980, when the University of Iowa decided to charge mandatory fees to its students for cable television service in the dormitories, a dissenting parent (a former Attorney General of Iowa) was quoted in the Des Moines Register (Heth, 1980): "I don't want to pay for a new television set for my daughter and have her watch all that junk. I think it interferes with education." He complained vehemently about the mandatory charges to be billed to the students, and was concerned that X-rated movies might be shown over the system. Obviously, his knowledge of cable made it incompatible with the education of his daughter.

Less than two weeks before at ISU, the Government of the Student Body released the results of its cable-in-the-dorm referendum which it conducted among ISU residence hall students. The results were negative. Although the results were not as clear-cut as reported by the GSB and the ISU

Daily, and although the referendum "failed" for many reasons,[3] the same kind of misunderstanding over the inherent value of cable television at a university which was to erupt in controversy at the University of Iowa two weeks later, probably existed on this campus as well.

With a situation such as existed in Iowa City and Ames in which little is done by either the universities or the cable companies to promote educational applications of cable television, educational access suffers from poor public relations. Most information about cable is received through the mass media or cable company literature. The problem with that is that consumer-oriented literature is designed to sell movies and sports and rarely educational programming or institutional access. This approach is not the rule in every municipality. But in markets such as Ames and Iowa City in which there is a minimum of competitive bidding for the franchise, the initial thrust is to get as many people "on the wire" as possible in order to help enhance revenues during the expensive start-up period.

If cable's educational value is presented in such a way as to give the impression that it is similar to institutional ITV or CCTV, this approach too would probably lessen its compatibility with education to many educators. These two technologies may be a bane to educators who have seen Ford Foundation grants, CCTV systems, and malfunctioning video equipment come and go. Therefore, the association made between them and cable works to cable's detriment.

That these developments are not being emphasized by cable entrepreneurs is not the principal point here. Rather it is that cable television is closely associated with traditional television. In turn, television is equated with past attempts to influence teaching. As a result, cable carries with it a stigma as great as television, and, therefore, attempts to promote cable should expect to meet as much opposition from the teaching community as have other manifestations of television in the past.

Another characteristic of cable technology which might put it at odds with educators is the fact that the selling, installation, and delivery of cable television is a fully-commercial business in the United States. In contrast to the cable industry, the field of education is not considered to be a "business" by its own employees--educators. In fact, they seem to have a natural aversion to being used as pawns in someone else's profit-making venture. In other words, the business of cable television is inherently incompatible with their own occupation.

In Ames, this feeling of incompatibility was exacerbated by the circumstances resulting from the "deal" made to the University by the cable company while it was laying cable throughout the community. As concluded by this writer in an earlier document (Epler-Wood, 1980), the cable company's offer to wire the campus residences under if certain conditions were met by the school: (1) polarized and strengthened existing negative attitudes and stereotypes of cable television, (2) created bitterness and animosity between the University and the cable company, and (3) may have diverted the cable committee away from discussions more important to its mission.

Another factor which may have reduced the perception of cable's compatibility is rooted in the manner in which cable is traditionally franchised in a community. The process that a municipality conducts which permits a cable company to operate a de facto monopoly in its community has been, for many years, a political one. Like business, politics does not normally mix with academics.

Although there was no competition for the franchise in Ames (Heritage Cablevision was the only bidder) and there were few, if any, questionable dealings (as frequently occurs in more highly competitive markets), the campaign had its share of side-taking, politicking and rumor-spreading extending back to 1974. In that year, the first voter referendum on cable was held in Ames, and it failed amid rumors that taxpayer's front lawns would be torn up to lay the cable (Wade, 1979).

The ISU Cable Television Committee, as professional educators, apparently did not wish to become involved with a political issue and its members decided to take a neutral position until after the Ames referendum. On the question of whether ISU should take a formal position on Ames cable, their minutes of 20 February 1974 state that a short treatise on cable should be published, but it admonishes that "this informational report be carefully prepared so as to ensure a no opinion position."

Perceived high degree of complexity The complexity of an innovation is, according to Rogers, the degree to which it is perceived as relatively difficult to understand and use. Access cable television is not inherently difficult to understand or difficult to use though it does embody several concepts. Some of these include the technology of transmission, the nature of the programming, and a dimension of quality. There was disagreement in committee over the "quality" of programming on the ISU access channel. This seemed to indicate that the cable committee misperceived the role that access cable television could play in education and thus attributed to cable a greater degree of complexity than was warranted.

The substance of the argument was that the programming which would go on the channel could not be discussed until the system was set up. But, said the other side, the system could not be set up until enough quality programming was available to put on it. The end result of this circular logic was a stalemate in discussions--an occurrence which was never counteracted with substantive fact-finding during the life of the committee. With a lack of informed advocacy from within or outside the committee, the establishment of a campus cable channel remained as complex an issue as setting up another commercial television station.

The issue of quality on cable is not generally taken to be important among those more experienced with educational access programming,[4] but the committee was concerned that commercial broadcast quality had to be maintained for all cable transmissions. This argument exemplifies how the perceived complexity of cable effectively slowed the committee's progress. Quality was apparently considered in the broad sense, including both technical aspects as well as program and content.

Low perceived trialability and few observable results Rogers defines trialability to be the degree to which an innovation may be experimented with on a limited basis. Observability, he says, is the degree to which the results of an innovation are visible.

An example of an innovation with little trialability is a precursor of modern cable television: closed circuit, or CCTV. Iowa State installed a CCTV system in the 1950s--one of the first universities to do so in the United States.

Even though there were no proven utilization models existing at the time and there was no guarantee that the faculty would use it, the amount of money necessary to build it up to the size where it could operate was spent. Most likely, this amount may have been as great as required to conduct a test to assess the system's value.

Unlike the over 770 college and university CCTV systems which are today used to deliver instruction (Dirr, 1981), ISU's system has been lying in idle disrepair for over twenty years. ISU teachers resisted the innovation for many reasons, the most salient of which were its inflexibility, primitiveness and lack of interactive capability. Most likely, too, many did not observe any results which would justify the extra effort they had to expend to use it. This example should demonstrate that without a trial with which to test the use that might be made of it by a teaching staff, an innovation will rarely be implemented successfully.

In the case of a broadband communication system, it is also very difficult to convince administrators of its value because, like CCTV, it is very expensive to experimentally set up a whole cable system just to test its effectiveness. Likewise, there is little evidence and too few successful models at institutions of higher learning to guarantee an administrator that immediate results would be observed even if an experimental system of cable access channels could be established.

Those few dramatic access cable success stories that do exist are easily written off as the result of enormous amounts of infused capital--something which happens to be in short supply at the moment. But at universities, colleges and communities where a wide variety of access cable applications have existed for a time, the technology has been producing results in more subtle, but yet revolutionary ways. The mayor of Reading, Pennsylvania--a city which has been using two-way access cable television in education for several years--said that they don't have good television, because that's not what they are trying to do, but that they have excellent communication (Miller, 1980).

ISU's educational mandate In 1862, the Morrill Act established this nation's first land-grant institutions and mandated them to "...promote liberal and practical education in the pursuits and professions in life..." for the benefit of all citizens. Since its inception, Iowa State University has (with special strength in agriculture, the engineering sciences and veterinary medicine) long provided leadership in making its instruction available to all.

In the face of cutbacks which threatened the fulfillment of this mandate, President Parks, during his welcoming address of September 1980, re-affirmed ISU's highest priority to be to serve the citizens of Iowa in the field of education. But the University has not been moving quickly in all areas to utilize cost-saving tele-technologies.

While on the one hand new programs involving remote computer access to University information are being introduced by the Cooperative Extension, Continuing Education still uses the University's fleet of private airplanes and pilots to shuttle professors around the state for classes. As of the spring of 1981, about 400 flights of this kind were being made to about twenty sites in and around Iowa each quarter (Overturf, 1982). This kind of information transfer/outreach, innovative in the days of inexpensive aviation fuel, is becoming increasingly difficult to justify. On the other hand, the relative cost of electronic technology hardware and telecommunication inter-connects, which the Cooperative Extension is utilizing, is decreasing.

With its close proximity to principal communication lines and the State capital in Des Moines, Iowa State is in an excellent position to act as a hub for electronic delivery of instruction and information to the State. Although Iowa has a comprehensive system of area vocational technical schools, it continues to depend on its state universities to supply advanced instruction and extension information to its citizens. With full utilization of public telecommunication systems and cable television system networks and interconnects, ISU could reach many Iowa's residents with information and instruction. (Every Iowa town and city over 5,000 people, and many of only a few hundred, already are cabled or franchised [Cochran, 1981].) But of course if such a system were to be developed, purchasing the hardware and establishing the delivery system would be only half the battle. The greater task would be to meet the great demand for software that the system would create.

ISU presently offers telecourses over broadcast television and a few cable systems in cooperation with the other state-controlled institutions (University of Iowa and University of Northern Iowa). These courses are acquired from the University of Mid-America and are not developed in-house. But ISU could do more than just broker instructional tapes. It could develop and offer, either on its own, or through consortium arrangements, telecourses and other materials which answer the specialized needs and wants of Iowa's citizens.[5]

In order to develop quality instructional material cost-effectively, the University must rely on a strong foundation of faculty familiar with, and motivated toward, participation in electronic media. A small, adjunct team of instructional developers cannot do its job well without a faculty relatively sophisticated in media production to back it up. A university is an enormous resource of valuable and useful information, talent and knowledge. Unless the faculty as gatekeepers of this treasurehouse are encouraged to assist in the development of materials for a wider population of students than each of them normally teach, the body of these materials could not possibly be as diverse, nor as inexpensive to produce.

Some universities mandate telecommunicative participation by their faculty. Oral Robert's University has a standing hiring practice that each of its professors must periodically produce videotaped instruction (Lipson, 1981). California University for Advanced Studies sets its goals further to the future and requires a "video thesis" from each of its doctoral candidates in education (Dranov, 1980). Iowa State, while not taking such drastic measures, at least has an established mechanism to accommodate those faculty wishing to produce media-assisted instruction. The system, however, is having difficulty meeting the demand, even without active encouragement from the administration to utilize its services.

The Media Development Division of ISU's Media Resources Center (MRC) reports that for the academic year 1979-80, ninety-nine slide, tape, film and video projects were completed, fifty-two percent of which were purely instructional in nature (Kent, December 1980). This was an increase of one-third over the previous year, involving nearly double the time commitment. Video production, as only one part of its instructional development effort, doubled that year, and with it, demand on its time increased eighty percent. The overall increase in utilization of the MRC has brought longer waiting lists and less flexibility in scheduling. The increase in video production has occurred without active solicitation either by University administration or by the unit, and in spite of the existence of at least two instructional media facilities in other parts of the University which are also producing instructional tapes.

Oversubscription in classes Students being shut out of certain classes or content areas is a concern at Iowa State University, as it is in other states. State-run universities in Florida, California, Connecticut, Ohio, Texas and others have stiffened their admission requirements in order to ease this problem (Fiske, 1982). In most instances involving state institutions however, Iowa included, decisions to restrict admissions in any way must be made by the state government.

In May 1980, the Vice President for Academic Affairs at ISU established an ad hoc Committee on Cable Television and Computer-Assisted Instruction to formulate remedies that might involve technology. In the spring of 1981, the Committee recommended that the present program of instructional development grants be expanded to offer greater financial incentive to professors in those areas affected by overcrowding. In this way, systems approaches could be developed which would enable greater number of students to be accommodated each quarter. It was not possible, however, to implement the plan.

Regarding the direct use of cable technology, even though some members saw future potential in it for alleviating overcrowding, the Committee made no proposals or recommendations involving cable. It apparently saw little opportunity for it to provide an immediate and feasible solution to the problem of oversubscription.

Campus communications There are presently three major users of underground cable at Iowa State, transmitting data between buildings and, in some cases, to locations in neighboring states. The Data Processing Center processes business and other administrative data for the University on its two IBM mainframe computers. These computers are accessible through the almost two-hundred terminals which are connected by coaxial cable installed and maintained by the Center. The system includes several points around the state reached by telephone company lines especially leased for this purpose (Ostendorf, 1981).

The Computation Center, which supports the student and faculty research on campus, will soon be using a total of twenty-five twisted-wire pairs to reach twenty-two buildings. The Center houses an ITEL AS-6 and three VAX A, B and C mainframe computers. Most of the wiring is installed and maintained by the Center, but a considerable amount (such as that going to distant points such as the Vet Med Center off the main campus and remote locations in South Dakota and Iowa City) is leased from the telephone company (Kolash, 1981).

The Physical Plant has a three-loop system of coaxial cable on campus which enables its Johnson Control JC-80 to monitor security, fire and energy comsumption at twelve buildings. The Plant has installed and maintains the system, and has plans for expansion of the service (Reynolds, 1981).

Data generated and processed by these three University functions could be consolidated into one single coaxial cable using readily available broadband technology. In addition, the same cable could carry several channels of voice and video with no noticeable interference between users. If this were done, the University would appreciate a considerable savings by the elimination of leased telephone lines.

With the increasing number of intelligent terminals and printers being installed by various departments on campus for research and administrative purposes (The Iowa Stater, June 1981), it is becoming realistic to expect that someday every building on campus could have access to Library data bases, ISU Daily news stories (the Daily already uses electronic word-processing and typesetting), and a system for memo, facsimile and electronic mail. With the proper supportive technology in place, an ISU student could, in a number of years from now, dial up videotaped instruction from the Library or interact directly with the Computation Center from the comfort of his or her dorm room. This idea is not as far-fetched as it may seem. The president of Carnegie-Mellon University announced in late 1980 that that university will provide a personal computer terminal for each student starting in 1986. The plans are moving ahead on schedule (Van Horn, 1981).

Three activities at the University, while not using telecommunication systems for data transmission, utilize television as an outreach and/or money-raising tool. These too might find an expanded audience with a developed cable television system. The Athletic Council began to reap financial benefits in 1980 when that year Heritage Cablevision agreed to pay it $200 per event, plus a fifty-percent share in any commercial advertising revenue, for each of seven sporting events cablecast from Iowa State (Henry, 1980).

Continuing Education (including the Telecourse program mentioned above) and the Information Office would be two other major potential beneficiaries in a developed broadband cable television system. Tuition fees and alumni donations could be an added source of income to the University.

Loss of access channels Another reason to catalyze acceptance and development of cable technology at ISU is related to a deficiency in the cable company franchise agreement with the city of Ames. The franchise, written as Ordinance #2661, passed in July 1978 and contains two items which directly affect the University. These are:

> Section 36-11010 -- Access Channels
>
> A grantee shall provide access channels, subject to the regulations of the Federal Communications Commission, as follows:
>
> ...
>
> (4) Five specially designated channels for Iowa State University.
>
> ...
>
> Section 36-11011 -- Public Service Installations
>
> ...
>
> (2) A grantee shall without charge for installation, or service, make single installation of its standard cable television service facilities with one convertor at each of five reasonable and appropriate locations for Iowa State University.

In essence, these two sections (which are the only two which apply directly to ISU) guarantee that the cable operator will reserve five channels of space (presumably about 30 MHz total bandwidth) on the cable and five positions on the converter dial (assumedly channel R and four others) for ISU's sole use. The franchise also requires that five drops, equipped for signal reception only be installed and maintained at no charge at five mutually agreed-to locations (emphasis added).

A problem arises here because of an assumption made by the ISU Cable Committee on the basis of verbal understandings between its chairman and the local cable company manager. The assumption was that the cable company is bound to provide five origination points in addition to the five drops mentioned in the franchise; however, nowhere can there be found any mention of origination points in the franchise, nor in any other legal document. The cable committee's Final Report and Recommendations (Appendix D), accepted by the Vice President for Academic Affairs, but not agreed to by the cable company, recommends not only five locations for the franchise-mandated drops, but also five locations for origination points. The fact that two locations are repeated on the two lists would indicate the committee had some confusion over the distinction between a drop and an origination point. The committee apparently did not realize that all origination points can be drops but not all drops can be origination points.

At this writing, three origination points have been placed on campus. Their installation and choice of location, however, cannot be attributed to the recommendations of the Cable Committee, but rather to the whims of the cable company. In fact, the Telecommunicative Arts studio origination point was installed well before the committee submitted its final report and recommendations. The cable company's local manager has stated that the reason the Telecommunicative Arts studio got an origination point was that it allowed him to make a promotional presentation. He also admitted that his being an alumnus of TCA may have had something to do with its early installation (Rich, 1982).

The local manager has also stated that the installation of origination points at Hilton Coliseum and Stephens Auditorium at Iowa State Center was a company decision. The motivating factor in these cases was to enable the origination of sporting events from the University by the cable company.

There are, therefore, already three "drops" (all capable of signal origination) on the ISU campus. Unless an offer is made to the cable company in the form of a comprehensive access channel utilization plan, the company will probably balk at requests for more than two more free installations. Further, because of the "reasonable and appropriate locations" clause in the franchise, it is safe to assume that there would be further argument if the University requested that feeder cable be extended any substantial distance from one of the systems existing trunk lines.

The minutes of the city of Ames' Cable Committee meeting of 12 May 1980 state the following: "Terry Rich [the local cable company manager] guaranteed origination from five channels if parties can guarantee continuous programming. The TCS [sic] building would be hooked up to Journalism, Computer Center, Memorial Union and Scheman." This statement seems to indicate that if the University were to present a comprehensive access channel developmental plan, the cable company would be willing to go beyond its franchise obligations and give many more concessions to the University than were originally negotiated for.

A presentation of a plan for the utilization of ISU's cable channels would benefit the school in another way. The action would create a countervailing force to the trend which is jeopardizing access channels across the United States. There are, at this writing, only nine unused channels on Ames' cable converter dial in addition to the one channel identified in cable company literature as "The Iowa State University Channel." This number is down from thirteen only one year ago. The pressure to fill these nine remaining channels will continue to increase. Already thirty-four satellite transponders beam program services to North America. Add to these the must-carry, local origination and miscellaneous access channels mandated by the FCC and/or the local franchise, and there are at least twelve more program sources currently available to Heritage than the Ames system has channels over which to present them.

Close observers of the cable television industry predict that dozens more new pay and free subscriber services will become available within the next five years. With such growth, the cable industry will be tempted to increase subscribership by offering more programming. It is quite apparent that if the remaining four ISU access channels are not being utilized, Heritage will move to place programming on them. There is nothing in the Ames franchise, nor in FCC regulatory precedent, which could protect the school from this usurpation.[6]

The chairman of the ISU Cable Committee has stated that the University would never have use for five access channels (Kent, July 1980); however, as expanded upon later in this paper (see Discussion), this is not necessarily true on closer analysis. But even if the school were to decide that it could use only two or three channels, a comprehensive plan for their utilization should be developed relatively soon in order to guarantee the possibility of their existence.

Terms and Definitions

The definitions given are those generally accepted by owners, operators and institutional users of broadband telecommunication systems. Portions of some of these definitions have been extracted from standard sources, and other definitions have been constructed by the author. For preciseness of language and brevity within the thesis, certain familiar terms have been assigned additional distinctions over and above their commonly accepted meanings.

A-B CABLES--Cable television systems need only one coaxial cable to operate; however, if a community's needs exceed the capacity of one (the A cable), a second (B) or more (C, D, etc.) is installed side-by-side with it.

ACCESS--The arrangement with a cable system owner/operator through which some entity is given complete control of, and responsibility for, the operation and programming of a channel. As a result, the cable system owner/operator has no say in its style or content. Specific types of access are given below.

---, EDUCATIONAL--The entity here could be a public or private school or school district, two- or four-year higher educational institution, or a consortium comprised of any or all of these.

---, LEASED--A certain channel is set aside for the used of any individual or entity, first-come first-served, upon the payment of a (normally) small hourly fee payable to the cable system.

---, MUNICIPAL--The entity here is generally the local government. This can include the city council, the mayor's office, fire, police, and other municipal services.

---, PUBLIC--The most general form of access in which any individual or entity can use a cable system channel at no cost on a first-come first-served basis. The management and operation of the channel can be the responsibility of the cable operator, a non-profit corporation, or some community institution.

ADDRESSABLE--Able to direct a signal on a cable system from point-to-point on demand.

ALFA-NUMERIC DISPLAY--Image composed solely of language characters and numbers on a homogeneous background, generated electronically.

BAND--A segment of frequencies in the electromagnetic spectrum. The following are those bands used by cable television systems. The bandwidth occupied by one cable television channel is six MHz.

---, MID--The frequency range between channels 6 and 7 on the VHF broadcast television dial (118 MHz through 174 MHz). This is the band most used by the cable television industry and has been designated by them as channels A-2, A-1, and A to I.

---, SUPER--The frequency range immediately above television VHF channel 13 (216 MHz through 300 MHz). The channels in this band have been designated J through W by the cable industry.

---, HYPER--The frequency range immediately above the super band (300 MHz to 440 MHz) designated by the cable industry as channels W through Z and AA through RR. As a point of reference, broadcast television UHF channel 14 begins at 470 MHz.

BROADBAND--Used to describe the ability to carry a wide range of frequencies (such as in a coaxial cable or fiber-optic bundle).

CABLE--The shorthand way of describing: (1) a coaxial cable, or (2) cable television.

CABLECAST--(n.) An organized transmission on a cable television system. (v.) To transmit such programming.

CABLE TELEVISION--At one time this was simply a term which described nothing more than a community antenna television arrangement. It has since evolved into a concept which includes delivery of programming other than broadcast television such as satellite networks, access, local origination; and services such as two-way communication, fire and security monitoring, and electronic purchasing. The discerning quality of this broadband telecommunication is that it is carried through coaxial or fiber-optic conduit rather than transmitted over-the-air.

CARS--Acronym for Cable Relay Service. Frequencies between 4.7 GHz and 14.7 GHz formerly designated by the FCC for the sole use of cable television system microwave interconnects. Through special permission it is also now used by some educational institutions for their visual communication links.

CATV--Acronym for Community Antenna Television. Devised in the early 1950s to describe the use of one common antenna placed on high ground as a means to service an entire community located in a fringe reception area for better reception of local broadcast television signals.

CCTV--Acronym for Closed Circuit Television. Differs from cable television in that its area of coverage is limited to a building or cluster of buildings. Also, if it is only a single-channel system, it may use raw video. If it is multi-channel, the channels are normally modulated only to standard VHF television frequencies. CCTV is not regulated in any way by the FCC.

COAXIAL--Describes the design of a type of two-conductor cable through which an RF-modulated signal can be transmitted without leakage.

CABLE SYSTEM--All those components (some of which are listed below) connected to the headend by coaxial cable or CARS interconnect.

---, DROP--The user fixtures, including the pencil-width coaxial cable coming from the feeder cable, which allow a standard television receiver to reproduce cable television signals.

---, FEEDER--The medium-sized coaxial cable to which end-user's drops are connected. Feeder cables are connected directly to the main trunk line.

---, HEADEND--The central hub of the cable system where the trunk lines originate. Generally, this location is outfitted with a TVRO (communications satellite receive-only dish antenna), local broadcast signal receiving equipment, CARS microwave link equipment, and the telecommunication gear required to re-transmit to its subscribers the local and distant signals that it receives. If the cable system engages in local origination, television production equipment and studio facilities may also be found here.

---, ORIGINATION POINT--A location within reasonable coaxial cable transmission distance of a feeder cable, equipped with an RF-modulator for upstream transmission of picture and sound.

---, TRUNK--The large coaxial cable line extending from the headend outward along the route from which a minimum number of feeder lines can service an optimum number of drops.

DATA TRANSMISSION--The carriage of information in digital form.

ELECTRONIC BILLBOARD (see ALPHA-NUMERIC DISPLAY)

INFORMATION--In the context of higher education access cable television, taken to be all that signal which is non-instructional.

INSTITUTIONAL LOOP--An adjunct part of a cable system, generally manifest by coaxial cable and/or CARS links and equipment separate and distinct from the rest of the cable system. This adjunct system connects institutions to each other and the headend while excluding the rest of the cable system, except by special arrangement.

INTERACTIVE CABLE--Generally synonymous with "two-way," this describes the ability for an end-user to transmit signal to the headend. There is a wide range to the types of signal that can be transmitted upstream in an interactive situation, and the exact form which it takes is determined by a number of factors (such as how much bandwidth has been set aside for these signals and what type of equipment is available at the end-user location).

INTERCONNECT--The arrangement by which signals generated and/or used in one cable system or institutional loop are made available to another cable system or institutional loop.

ITFS--Acronym for Institutional Television Fixed Service. Thirty-one microwave channels (2500 MHz to 2690 MHz) set aside by the FCC for licensing and use by educational institutions for their telecommunication needs within a limited geographical area.

ITV--Acronym for Instructional Television.

LOCAL ORIGINATION--Programming generated on a cable system by the management of that same cable system. Generally it appears on a designated channel set aside by the cable company, and its style and programming content bear a close resemblance to local independent commercial broadcast television.

NARROWCASTING--Production and transmission of programming to a relatively small, generally special interest, audience. Coined by the cable television industry to differentiate between it and commercial broadcasting as regards the relative ability to cater to more specialized tastes and needs.

NETWORK--A sharing of programming between two or more cable systems, institutions or agencies either by formal interconnect or satellite transmissions.

REDEFINITION AND MODIFICATION--The phenomenon noted by Charters and Pellegrin (1972), Kritek (1976), Rogers (1979) and others whenever innovations have been successfully implemented. Specifically, an innovation is re-invented by the adopter and his or her behavior is changed to accept the innovation.

RF-MODULATOR--An electronic device which changes raw video and audio signal to a six MHz-wide radio frequency for subsequent transmission over coaxial cable.

SCRAMBLE--To modify an RF television signal in such a way that a receiver not equipped with a decoding device cannot render the picture understandable to the viewer.

TELE-TECHNOLOGIES--A broad generic term which includes all devices which depend on, or can utilize the electromagnetic spectrum as a means for transmitting signal.

TELEVISION--Those signals broadcast over the air from a terrestrial point source and received by an individual or community antenna.

TBC--Acronym for Time Base Corrector. A device which adjusts, if necessary, the synchronizing signals on a videotape to match an operating standard.

TRAP--To prevent cable television signals from being transmitted beyond a certain point on a coaxial cable.

TWISTED-WIRE PAIR--The two-conductor cable used as the standard for narrow band transmissions (such as telephone voice signals).

USE--To make use of, in the passive and unproductive sense.

UTILIZE--To make use of, in the active and productive sense.

Statement of the Problem

The problem for this study was to develop a strategy such that cable television would be re-invented by the members of this educational community--re-invented in the sense that they might begin to think of cable in terms divergent from traditional television. More specifically, the challenge was how to attack the five characteristics of the innovation itself which threaten its successful implementation and subsequent institutionalization.

Adoption of an innovation can rarely be dictated. At some institutions, primarily religious and military, administrators heavily influence teaching style, technique and decorum within classrooms and curricula. However, at the majority of today's institutions of higher learning, especially in larger urban areas, teacher academic freedom and autonomy is more protected than ever. If the introduction of technology is approached in the wrong manner, this situation can create a serious impediment to the improvement of teaching techniques and/or the introduction of cost-saving devices even if teacher's positions and tenure are guaranteed.

Certainly in such situations the administration bears almost total responsibility for creating an atmosphere conducive to innovation, for demonstrating leadership in strategic planning, and for offering support for implementation. However, without grassroots consent from faculty and students, no innovation will ever become institutionalized (Berkman, 1976). Therefore, another problem was to attempt to influence administrators by demonstrating grassroots support for the technology.

The final problem confronting the researcher was how to document any approach which might be formulated out of these conditions, and measure the impact of that approach on the University.

Purpose and Approach

Purpose

The purpose for conducting the cablecast was to improve cable technology's chances for adoption at Iowa State University. The purpose of the study was: (1) to assist in assessing the effect of the project, (2) to characterize the University population which might utilize broadband cable communications in the future, and (3) to monitor changes in opinions, interest levels and expectations during the project.

This project was comprised of two major elements: (1) a week of cable television programming entitled Cablexpo, and (2) a study conducted concurrently with the execution of that project. The two were related in many ways, but were distinct in matters such as administration and budget. The most important difference between the two elements was in their relative degrees of objectivity. The Cablexpo project was blatantly subjective--it had a positive point of view regarding the potential of cable technology, and a high degree of enthusiasm to see the innovation adopted. The study, on the other hand, was kept as free from bias as possible--its function being the receiving instrument for the data and other information generated by it and Cablexpo.

Approach

The approach taken by Cablexpo to fulfill its purposes was designed to positively affect the perception of those five characteristics of any innovation which determine the rate of its adoption, as previously discussed. Specifically, the approach was designed to: (1) create an atmosphere with which to improve cable's trialability and then actually conduct a trial; (2) reduce cable's perceived complexity by encouraging individuals to actively participate in it, thereby demystifying the technology; (3) show that access cable can produce observable results via the creation of actual programming; and (4) demonstrate cable television's relative advantage and compatibility to education by increasing levels of awareness by means of a promotional campaign. It was hoped that resistance to the innovation as exhibited by lack of action and incomplete understanding at the University would be greatly reduced as a result.

The experimental demonstration project At first analysis, the approach used by Cablexpo might be considered identical to that of an experimental demonstration project. However, the true experimental demonstration project, as defined by Havelock (1973), is normally initiated by administrators, sometimes with the help of research and development strategists. (Havelock briefly mentions that such strategy can begin from a grassroots effort but it occurs less frequently.) More often than not the experimental demonstration project is "rigged" in order to show the innovation in its best light. In other words, it serves as a showcase.

Gartner and Riessman (1974) agree, but add that if the experimental demonstration is too big to permit business as usual, it transcends its simple showcase function and becomes a mechanism through which a system can be reformed by utilizing the findings and process of the demonstration. In short, it can also function as a feasibility study, or needs assessment.

Cablexpo was structured to perform both of these functions with two minor differences. First, rather than being administration-directed, it was generated from the student body. It used a bottom-up approach, and as such, it: (1) did not give the impression that the upper level of University administration was encouraging the faculty and staff to cooperate and participate, (2) was not well-funded such that it could be easily "rigged" or continued over a long period of time, and (3) depended fully on volunteer participation--both for its administration and its programming.

Second, Cablexpo's design included an element that reaches beyond the showcase and feasibility study aspects of a traditional experimental demonstration: active promotion. Cablexpo utilized this strategy to catalyze interest and activity by breaking through the structural and attitudinal barriers which might be impeding cable television development.

Although the overriding need for this study was to demonstrate to educators that communication technologies should become a part of our educational systems, a more limited approach was chosen because of the researcher's limited time and money. Cablexpo deliberately avoided a full range of access cable applications, and instead focussed on the instructional and informational applications of cable via videotape, live studio and alpha-numeric display.

This limitation in scope was not considered to be a detriment, but rather an advantage, for by omitting certain considerations, the project was scaled down to a more manageable size, and a lesser amount of dissonant information was presented to the University. Working within this limitation, it was possible to increase awareness of cable technology through a well-publicized demonstration project, and thereby speed up the process of innovation.

The dependence on volunteer participants For one who attempts to influence the innovation process in order that access cable television is adopted by an institution in a form which is thought to be most beneficial, there might seem to be disadvantages in encouraging volunteer producers to determine the nature of an experimental cablecast. Two questions might be: How can the most beneficial application of the technology evolve if the user's knowledge is limited or incorrect? If in the trial the innovation's attributes are perceived negatively, might not the innovation be ignored and/or permanently debunked?

The validity of these questions is moot, however, if one realizes that the benefits enjoyed from the participation and ego-involvement on the part of the volunteer participants far outweighs the risks sure to accompany an attempt to protect oneself from these doubts. To understand why participant-determined outcome is highly preferred, one must examine the available options and their theoretical underpinnings. The less authoritarian the educational institution, the more likely the chance that one or the other of the following approaches to planned innovation strategy may work.

Option 1--Expository Here it is assumed that the persuasive nature of the written and spoken word is sufficient to promote the adoption of the innovation. This is the technique used by commercial advertisers who must rely on their media messages alone to convince people to try their product (such as a new type of bath soap).

Option 2--Trial/Expository This option is more ambitious in that it requires some active participation of the adopter, but to use it results in a higher level of success (Havelock, 1973). First, opportunities are presented for limited testing of the innovation in some piecemeal fashion. Later, interpersonal communication tends to diffuse the innovation throughout the community. In the commercial advertiser analogy, this approach might suggest that a free sample bar of the new bath soap be mailed directly to a group of potential consumers' homes. With the product in their hands _and_ a media campaign in their eyes and ears, a group of individuals is much more likely to adopt the new product.

Redefinition and modification This phenomenon of compromise utilization as demonstrated by the Trial/Expository approach is well-documented in the literature and forms the basis of Rogers' model of the innovation process (Rogers and Adhikarya, 1979). Rogers calls the phenomenon _redefinition_. In his and other reviews of the literature, it has been noted that the first version of an innovation is rarely adopted. Usually, there are many modifications that shape the final version. In fact, it is noted, not only is the innovation "re-invented," but also the people working with the innovation undergo change.

The process of redefinition and modification can be applied to Cablexpo. For example, if encouraged to create their own programming, the project's participants and observers might better assimilate this innovation (cable) into their realm of past experiences, values and norms. Once this common ground is established between them and the change agent, an approach more expository in nature can be developed wherein new and more imaginative ideas can be presented and discussed. Thus, by meeting its participants and observers on their own terms rather than on terms imposed by a wholesale adoption of the innovation, Cablexpo could accelerate their "re-invention", or redefinition, of cable television. Hopefully, this technique would allow for a more thorough acceptance of broadband cable technology in the future.

Gartner and Riessman (1974) say that if an innovation can be divided somehow into smaller, more manageable (less dissonant) parts, then redefinition and modification is more likely to occur. They call this approach planned phasing, or moving from the experimental demonstration, in carefully planned steps, to ever larger territory. As in Skinnerian programmed learning, this step-by-step approach of planned phasing through compromise utilization theoretically could be continued until the innovation had been mastered by the adopter to its fullest complexity. This was the effect desired by Cablexpo.

Research Questions

As a feasibility study and showcase, this undertaking wished to answer a number of questions regarding cable development:

1. How do University faculty, student organizations and University services utilize the different forms of media presently available to them?

2. What kind of organizational structure might be needed for conducting a cable experimental demonstration?

3. What attitudes are prevalent at the University which might hinder the development of cable television on the campus?

4. How diverse might be the participation for an experimental access cable demonstration?

5. How much effort must be spent by a cablecast organization to successfully recruit a suitable level of volunteer producer participation?

6. What will be the breadth, depth, and character of programming of an experimental cablecast if the responsibility for the design and execution of productions is left

primarily up to individual producers?

7. What kind of equipment is needed to conduct an experimental cablecast, and how and for what will it be used?

8. What kind and how much equipment and assistance will be demanded from University suppliers by volunteer producers in preparation for a cablecast? Will these suppliers be able to meet the demand?

Other questions relate to Cablexpo's efforts to promote cable television at the University:

1. What forms of publicity can be used effectively to promote and publicize cable participation?

2. Can a volunteer experimental cablecast such as Cablexpo affect levels of opinion and interest in cable television among its participants and observers?

Footnotes

1. Most so-called "laundry lists" have been exercises in futility. Changing technology has relentlessly rendered them incomplete, actual use has created hybrid applications which straddle categories, and attitutinal or structural barriers have prevented many of the suggested uses to be tested for reliability and practicality. Two that have best lasted the test of time are by Baer (1971) and the Sloan Commission (1971). Those in specialized areas such as education (Mullally, 1973) or urban access (Tate, 1971) tend toward the "blue sky" and are often ungeneralizable as they are too situation specific.

2. The ISU Cable Television Committee was formed ad hoc by the Vice President for Academic Affairs in February 1974.

Although it met a number of times between 1974 and 16 March 1978, it was not until this latter date, when the cable referendum passed a public vote in the city of Ames, that the committee began to meet in earnest.

The committee varied in number between fifteen and twenty faculty and middle-level administrators and one student, all generally affiliated with media-using areas of the University. Its first mission when formed in 1974 was to ascertain Iowa State's interest in supporting the advent of cable television to Ames. Following the referendum, the committee's chairman negotiated in behalf of ISU's interests as a member of the city of Ames' cable committee for the inclusion of certain items in the Ames/Heritage Cablevision franchise.

3. Whether or not the referendum truely failed is a matter of interpretation. See "Cablexpo: A Proposal Outlining ISU's First Use of Cable Television," by Gregory Epler-Wood (Iowa State University, Ames, IA) 10 December 1980, pp. 9-11.

4. Gilbert Peters (in "Cable TV and Higher Education," 1981) discerns three ways to define quality in ITV: academic rigor, equipment standards and presenter polish. He claims that only the first is important, and that in his experience a "well-informed talking head" is the accepted standard. Brenda Davidorff (1981), educational programmer at Qube, Columbus, Ohio, agrees.

5. There appears to be a great and growing market for these materials. First, witness the rapid expansion of the Appalachian Community Service Network which, in a four-year period, has grown from a small regional service to a fourteen-hour-a-day satellite network reaching 1.67 million cable television subscribers with its instructional programming.

Second, a 1979 survey sponsored by Panorama (Marcus, 1980) found that pay subscribers (above basic service) want an increased amount of educational programming more than any other type of service.

Finally, the Corporation for Public Broadcasting/Annenberg School of Communication program (CPB/ASC Project, 1981) has begun to distribute $150 million over the next ten to fifteen years in the form of instructional development grants.

6. Precedent has already been set in cases where access channels have been usurped by the cable operator. Sometimes a "use it or lose it" clause is included in the franchise which carefully defines the amount of utilization required after which the cable operator relinquishes all rights of

claim. This was the case in Spokane, Washington which, in 1972 because they were the first municipality to allocate five educational access channels, was required by the FCC to show that five channels could be programmed effectively (Schaar, 1981). Even without this clause of recourse, however, the FCC, since the U. S. Supreme Court's Midwest decision (FCC vs Midwest Video Corporation, 1979), has not been able to take a position against cable systems which take over unused access channels.

CHAPTER II. REVIEW OF THE LITERATURE

Overview

This chapter discusses in detail four areas of interest to this study: (1) the process of innovation in organizations with emphasis on the redefinition and modification phenomenon, (2) research and opinion regarding the etiology of resistance to change in the field of education, (3) models and non-model strategies for innovation, and (4) the utilization of cable television at American institutions of higher education including consortia and the use of telecommunication demonstration projects.

The Innovation Process

Background

In 1943, researchers Bryce Ryan and Neal Gross studied the manner in which an innovation (the use of hybrid corn) diffused through a social group (farmers). Since that study, other researchers have been looking at all sorts of things, ideas and behaviors as regards what determines how they are adopted by individuals, social systems and organizations. Individuals working in disciplines as diverse as sociology, anthropology, economics and political science soon recognized value in being able to control change, and the field steadily grew. Today, most of the basic research can be found under diffusion of innovation studies in the communication literature.

As researchers' diffusion theories grew more sophisticated, the degree of innovativeness of the individual or social group came to be seen as a dependent variable correlated to certain independent variables of the adopter such as cosmopoliteness, age, socio-economic status, etc. But when this same approach was applied to organizations and social systems, many critics found it inadequate. Some researchers chose to explain the innovation process by first classifying groups and organizations into types and then developing a construct which generally ignored innovativeness, but introduced many other parameters. One such model was suggested by George Beal (1962) in which he identified five classifications of groups, and then listed no fewer than thirty-one steps in the social change process.

Other researchers, especially in education, chose to take a closer look at the most troublesome stage of change--the implementation of the innovation. It was here where they felt that the actual decision is made by members of a social system or organization to adopt or reject a change. What is more, they found that their degree of innovativeness had little or nothing to do with their decision! Kritek (1976) reviewed forty-four case studies in which innovations were introduced. Even in those cases when an institution justifiably claimed itself to be innovative, a closer inspection revealed that this was certainly not the case to any degree of predictability.

Redefinition during implementation

Many studies in the literature on implementation state, in one form or another, that rarely is an innovation after adoption found in the same form in which it was introduced. During implementation, the innovation was almost always modified. House (1974) reports that teachers rarely adopt an innovation as a whole and rather the innovation "undergoes a transformation" to fit into the established social and political structure of the school. Carpenter-Huffman, Hall and Sumner (1974) refer to a "natural law of program survival" which they define as the tendency for a group to emphasize the compatible aspects of the innovation and de-emphasize the incompatible. Reynolds (1973) called the phenomenon "assimilation to the familiar" when in his study he found staff members re-defining their new roles as required by an innovation in a manner consistent with past experiences, values and norms. It was observations such as these which set the stage for an alternative frame of reference to the degree of innovativeness which had been so popular in innovation research.

Charters and Pellegrin (1972) were probably among the first to write about redefinition of an innovation. They noticed that after four schools successfully adopted an innovation called "differentiated staffing" and were happily practicing it, there was very little agreement between the schools on the definition of the term. Yet in reality, the concept was being operationalized every day by all of them with a minimum of uniform concrete guidelines. The researchers concluded that "the innovation was to be invented on the inside, not implemented from the outside." From observations such as these came the realization that the change which occurred between introduction and adoption and which was previously ignored or dismissed as "noise," was actually the integral part of the innovation process called redefinition.

Rogers' model and redefinition

In 1979, Rogers and Adhikarya integrated this concept into a model of the innovation process which, rather than viewing an innovation as an entity to be adopted, treated it as "a process of gradual specification of the operational details about an innovation as a system...." They suggest that the innovation process occurs in five general stages:

> 1. Agenda-setting. The definition of general organizational problems that may create

> a perceived need for innovation.
>
> 2. Matching. A problem from the organization's agenda and an alternative solution (that is, an innovation) are brought together and consideration is given to their fit.
>
> 3. Redefining. The innovation is defined in terms relevant to the particular organization and its perceived problem as the technological solution is modified to fit these specific conditions.
>
> 4. Structuring. Organizational structures directly relevant to the innovation are altered to accomodate the innovation.
>
> 5. Interconnecting. The relationships between the innovation and the rest of the organization are clarified, so that the innovation eventually loses its separate identity and becomes an ongoing element in the organization's activities.

Thus with this new model, emphasis has shifted away from the degree of innovativeness of an organization to how an innovation is redefined, and an organization is restructured, while an innovation is matched to a problem. Simultaneously, the importance of the decision as to whether or not to adopt an innovation as is was replaced with the dynamics of its implementation.

To sum up, with this readjustment of focus, it is now possible to see what is occurring during the innovation process. An organization, or rather the individuals making up that organization, are investigating ways in which the three major constituents in the process--the innovation, the organizational structure and their own individual behavior--

can be multilaterally transformed, modified and justified to create a new stable and comfortable balance.

Resistance to Change in Education

Overview

Educational institutions have sometimes been regarded as slow to change. This impression is primarily a result of witnessing the perennial disagreement among academicians in the interpretive arena of curricula--or the form and substance of instruction.

Much like organized religions, large educational institutions tend to be slow at institutionalizing change, even though the latter should be much more dynamic--continually improving their curricula to meet the changing needs of society. But at the same time that we expect both these kinds of institutions to be highly responsive to society's needs, we also require that they remain changeless in order to perpetuate its folkways, mores and values (Evans & Leppmann, 1967).

In a rapidly changing world, this seeming contradiction presents education with a challenge: how to identify temporary fads and resist the temptation to follow them. In the midst of this challenge are caught faculty and administrators who are constantly bombarded with new ideas, techniques and gadgets--collectively regarded as innovations.

Resistance to change might be much less of an issue if education's slowness to innovate could be explained away as being simply cautious conservatism; however, much data exists which indicates that the problem is much deeper, and that resistance to innovation is almost universally exhibited in matters of curricula change. Sometimes this resistance is manifest passively, an occurrence which Fincher (1980) says has, at some college campuses, "long been elevated to an art form." Other times it is very much active, and sometimes formal, as in grassroots teachers' union collective bargaining noted by Berkman (1976) and Beal (1981).

Etiology of resistance

Joseph Lipson (1981), of the National Science Foundation, tells of a friend who, in jest, when asked to describe resistance in education, likened a school to an organism which, when exposed to an infection (an innovation), resists to maintain its character and integrity. Obviously, innovative change is not something to be dreaded like an infection, but because resistance to it does indeed exist, an examination of some views as to why it occurs would be in order. Together, this extensive body of literature suggests that both attitudinal and circumstantial factors can contribute to resistance to an innovation in any given situation.

The independent faculty member stereotype At the university level, some see resistance to change as resulting from the nature of the structure and daily routine of the teaching profession. Fincher (1980) proposes that faculty resistance is more passive and undirected than normally assumed. Faculty members, he claims, are independent sorts who have either been attracted to higher education or have gravitated to it, as a course of least resistance. As such, they are one of the few professional groups which can still control their daily routine. This means that the university faculty member may cut classes, committee meetings and office hours with impunity. This kind of autonomy is a bane to the natural flow of innovation which ordinarily requires considerable change in the daily routine.

Hershfield (1981) sees similar circumstances in the resistance to a specific kind of innovation--instructional technology. He claims that the model of excellence in higher education--the prestigious research institution--gives rise to the highly individualistic, creative and specialized professorial candidate. The kind of activity that this model encourages and nurtures is antithetical to the team effort required for the development of technology-dependent instructional materials.

Van Camp (1981) sees a similar problem, but more specifically in the development of telecommunications. Media production requires that one set of specialists, the educators as content experts, work with another set of specialists, the production team as technicians. The problem arises when individuals from these two groups, speaking "different languages," must work together.

Absence of reward   Fincher (1980), Evans and Leppmann (1967), Beal (1981) and Eastwood (1978) attribute resistance to the absence of: promotion, workload compensatory time, and financial and other "brownie point" incentives. Eastwood (1978) noted specifically in his study that cooperation was offered freely by a faculty member so long as it doesn't "cost" anything, but as soon as the member saw that the innovation required a commitment of time, budget, space or facilities, the offer was quietly dropped.

A recent survey (Dirr and Katz, 1981) tends to confirm this. Among 960 randomly selected faculty members in the United States, a commonly held view was found to be that the use of television adds to their work and that the institutional and professional reward structures do not recognize efforts spent in developing and using it.

Fear of job loss   Support for the use of instructional technology is sharply divided among educators, but even proponents of educational innovation and/or reform in general can be radically opposed to the use of technology if they perceive it as an attempt to replace the teacher with a machine. Grant and Riesman (1978), for example, dismiss such technical innovations as programmed instruction, labelling it as an attempt to develop "teacher-proof curricula" by those who "contemptuously consider all teachers as beyond redemption."

Fear of job loss is often cited in the literature as a concern rather than as a reality (Eastwood, 1978; Finley, 1970). Even though it would be difficult to find a teacher who has lost a job to instructional technology, it isn't the reality of the threat, only the perception of it, which makes it so important (Berkman, 1976).

Technology is dehumanizing Any technique which decreases the amount of face-to-face contact between teacher and student is often seen to be only dysfunctional to the educative process (Eastwood, 1978; Hershfield, 1981). John Everett (1981), president of the New School for Social Research, claims that the classroom with its interpersonal engagement and social interaction retains its high priority among students and that television's Carl Sagan will never replace Mr. Chips. Neil Postman (1979) treats television as a separate curriculum in a class by itself, which, through its isolating learning experience, encourages idiosyncracy, contempt of authority, and the attractions of anarchy.

Loss of total control of the classroom The American Association of State Colleges and Universities (AASCU) and the National Association of State Universities and Land Grant Colleges (NASULGC) focussed on this factor as one of the two most critical for future planning to counter resistance to mediated learning (in Beal, 1981). The egocentric behavior which teachers enjoy by being a power figure and sole provider of learning is cited as a strong one by Berkman (1976) and Levien (1972). This is closely related to "role overload," described below.

Role overload and reluctance to modify behavior A teacher will absorb and reflect only so much change in his or her daily routine. If the number of new roles required by an innovation exceeds the finite number comfortable to a particular teacher, it will not be adopted (Gross, Giacquinta and Bernstein, 1971; Roberts, 1978). Of course a major variable here is the degree to which a particular innovation requires behavioral change. It is one thing for a teacher to substitute one textbook for another. But it is another thing again to convince that same teacher to incorporate into his or her curriculum an instructional system involving a piece of technology-dependent hardware. Pincus (1974) and Hull (1974) in related findings, observed that teachers would simply not accept the responsibility to change their behaviors.

The legacy of inadequate and failed hard- and software Although probably well-warranted, the negative perceptions of educators who have seen a parade of technological innovations march down dead end streets over the years continue to be a problem. This uneven track record could be responsible for many educators' failure to accept the proven effectiveness of educational technology in certain circumstances (Hershfield, 1981; Beal, 1981).

Lack of technical and/or moral support Reported in surveys (Baukus and Murray, 1978; Dirr and Katz, 1981) and in experimental research (Eastwood, 1978; Roberts, 1978), teachers depend heavily on specialists to assist them in developing and using technological innovations. They also rely on their administrators for encouragement to be innovative. In the absence of either kind of support, the innovation generally failed.

Lack of training Corporation for Public Broadcasting surveys report that only seventeen percent of all K-12 teachers (Dirr, 1979) and twelve percent of higher education professors (Dirr and Katz, 1981) have had formal training in instructional television technology. Both Hershfield (1981) and Beal (1981) see the lack of trained instructional technologists in the field who can work with a wide range of non-technological and technological teaching methods with equal expertise, professionalism and ease as one of the greatest extant problems.

AASCU and NASULGC (in Beal, 1981) have cited the lack of understanding of appropriate educational applications of technology as one of the two problem areas to which attention should be paid in this decade. This view is supported by Dirr and Katz (1981) who found a major view held by non-media-using faculty to be that their course framework was maladapted to television.

Teaching with ITV is ineffective and students dislike it   Although the generalization can now safely be made from the literature that ITV is more likely to be as effective as traditional forms of instruction than not (Chu and Schramm, 1967), ucilization of instructional media varies greatly with the type of institution and other unrelated factors. No comprehensive study has yet been done which shows blanket dislike of television teaching by students. Generally, a higher correlation is found between the like or dislike of a course and a particular subject or teacher.

Strategies for Innovation

Three models for innovation planning

Havelock (1973) organized and articulated the three major models for innovation planning: (1) Research, Development and Diffusion (RD & D), (2) Problem Solving (PS), and (3) Social Interaction (SI). These have also been called

Adoption, Integrative Development, and Change Agent models, respectively (McNeil, 1981).

The RD & D model typically entails a massive planning and testing effort. It also assumes a more-or-less passive but rational consumer who will "buy" almost any innovation so long as enough systematic research and development is conducted. PS requires a considerable amount of participation and commitment by the potential user. The thrust here is on intensive needs analysis and diagnosis. The SI model views an innovation as something fixed and concrete which is naturally diffused throughout a society through interpersonal relationships. These relationships are systematically nurtured and encouraged by an outside agent. Havelock did most of his work in this latter area.

But just as conceptualizations of the innovation process have softened their focus from the innovativeness of an organization to the phenomenon of redefinition and modification, so has the literature of innovation strategy broadened its emphasis on structure and manipulation by a change agent to an espousal of general guidelines for implementation.

This use of general guidelines, the so-called "non-model" for change (McNeil, 1981) was propounded as early as 1974 by Shiman and Lieberman. They concluded from their five-year study of the change process in eighteen schools that: "we need conceptualizations of the change process, not prescriptions for it. Only when we stop imposing our rather simplistic solutions, models or designs on complex school situations will this come about." The researchers felt that practice exceeds theory and that the best that can be done is to be sensitive to the needs of those in the particular situation, and then intervene and direct the innovation effort with broad guidelines adapted to fit the specifics of the particular institution.

This kind of thinking has given rise to a substantial body of literature which has influenced and strengthened the three major models. Rather than directly operationalizing existing theory of the change process such as the three models attempt to do without benefit of substantiated middle-range theory, the non-model has derived working guidelines by examining concrete examples of educational innovation with a social-psychological perspective. From these guidelines, the non-model proponents reason, a much more powerful strategy can be formulated, tailored to specific needs dictated by the specific situation.

Guidelines for Planned Innovation

It should be pointed out that most of the literature on innovation strategy is written from the point of view of the administrator or curriculum planner and very little specifically for the teacher or student trying to influence change at the grassroots level. Havelock (1973) recognized that planned change is occasionally initiated from an individual or group within and lower in the organizational structure. An individual working from the bottom-up, however, will have different and greater obstacles to overcome than, for example, an administrator with certain advantages that come with the office.

This bias of the literature is also reflected in non-model guidelines, but to a much smaller degree. For example, here is a useful set of guidelines as proposed by Stern and Keislar (1977) from their study of five-thousand references on teacher attitudes:

1. Develop an accepting environment   The responsibility to do this usually rests with the administration. Research generally supports the view that seldom does innovation occur without administrative leadership and support (Dirr, 1981; Kritek, 1976). Curtis and Biedenback (1979) also highlight this aspect in his discussion of ITFS. Many RD & D-based strategies depend on tools such as brainstorming, sensitivity training, training groups and role-playing which in turn depend on administrative support for the freedom and openess of dialogue which these tactics require.

2. Encourage personal involvement   It has long been known that attitude change often follows action (this is the basis of most behavioral modification techniques), and so

when teachers are encouraged to participate in a trial or simulation, attitudes can change dramatically. Havelock also asserts the value of the experimental demonstration to be a powerful tactic for adoption. This factor is one of the major assumptions of the PS model of innovation strategy planning.

3. Promote acceptance of personal responsibility If the responsibility and authority for implementation are given to teachers, rather than dictated from above, ego-involvement will increase the likelihood that the innovation will be accepted. Personal involvement and responsibility-sharing have been expressed, in slightly different terms, by Licklider (1981), Curtis and Biedenback (1979) and Hull (1974).

4. Role models Stern and Keislar saw that the attitudes of respected colleagues and administrators have a strong influence on teachers. This has been observed by several major studies working with the SI model and explained by the natural diffusion via interpersonal relationships through a "community." Havelock (1973) states that a ten to twenty-percent acceptance rate for an innovation is usually followed by general adoption.

Another avenue to role-modeling is through what Havelock calls prestige suggestion, in which outside examples of successful innovation are presented. The comparison and competition introduced by this tactic can assist in creating a greater realization of certain needs; however, this approach is temporary in its effect and not as effective as the intra-organizational role modeling suggested by Stern and Keislar.

5. Incentives for change   As supported by research cited earlier, the absence of rewards, not necessarily financial, is dysfunctional to the adoption of an innovation. Stern and Keislar found that one of the greatest and most powerful rewards to a teacher can be the assurance of improved student progress and more stimulating learning conditions.

6. Preparation   Stern and Keislar stress the importance in including in any strategy an adequate period of orientation in order that the individuals become familiar with the innovation. This is a weak recommendation for the Cablexpo strategy because it assumes that a top-down approach is being planned, and it ignores the strong value that the bottom-up type of strategy has in fulfilling this need for familiarity with the innovation.

Additional guidelines suggested by other sources are:

1. Conduct a needs assessment early on in the planning process   Nelson (1980), Curtis and Biedenback (1979), Havelock (1973), Muhlbach (1981) and Buske (1981) all agree

that the problems must be identified and understood in their full detail before any planning can occur. Once the problems are re-interpreted as needs, a better match can be made between them and the available resources, thereby finding a solution (an innovation).

2. _Legitimize the project_ Licklider (1981) suggests three things that a change agent needs from others within the institution: (1) money or other concrete resources, (2) cooperation (others behaving differently because of your innovation), and (3) _legitimacy_ (others not changing their behavior, but allowing you to change yours). He says that support from outside the institution is often another good way to help legitimize the project, because "often no one at home will take you seriously until you've impressed someone elsewhere." Nelson (1980) describes this step as "gaining the license to act."

3. _Establish alliances_ The identification of those who can be helpful both as resource people and early disseminators of the inovation can be invaluable. The change agent must be willing to share credit with discretely selected allies, or else any gains in legitimacy might be lost (Licklider, 1981; Nelson, 1980).

4. _Expect and adapt to compromise and change_ If one expects another individual to adopt an innovation and change his or her behavior, then one should also expect that

either his approach, the innovation, or both, will change as well. This redefinition and modification phenomenon, described earlier, is included in several lists as a guideline.

The RD & D model assumes that these modifications will occur during the research and development stages (Havelock, 1973), but Licklider (1981) in his non-model approach believes that changes are much more likely to be adopted "if they fit within the existing structure, if they are as close to foolproof as possible, and if flexibility is built in so that each person can 'individualize' its utilization."

Broadband Cable Technology at Educational Institutions

Overview

Although there are at least two major surveys underway at this writing (one by AASCU and another jointly by the National Federation of Local Cable Programmers [NFLCP] and the Cable Television Information Center [CTIC]), there does not now exist a comprehensive document which describes the degree of utilization of cable television at colleges and universities for information and instruction. The most useful information up to this point has been the Higher Education Utilization Study (Dirr and Katz, 1981) sponsored by the Corporation for Public Broadcasting (CPB), and the

Cable Services Report 1979-1980 sponsored by the National Cable Television Association (NCTA).

Questions in the NCTA survey generally favored local origination programming and what little information on educational access channels that could be extracted has been summarized in Table 1.

It will be noticed that thirty-four percent (398) of the 1167 systems which responded claimed that they have access channels that were being utilized to some degree by an educational institution in their area. Thirteen percent (150) reported use by a college or university. Of these 150, only twenty-five systems reported that they had one or more channels fully dedicated to educational access. It cannot be determined from the data whether these twenty-five are dedicated to the college/university's sole use, or are being shared with another institution or with the cable company as part of the company's local origination programming.

It can be derived from the data that generally the larger the market size (market size is determined by the FCC and is a fairly accurate measure of the size of the population center within which the cable system is located), the greater the likelihood that a college/university is utilizing the local cable system. For example, twenty-one percent of the top fifty market systems (twenty percent of

Table 1. Summary of 1979 NCTA survey showing number of cable systems used by educational institutions

	Top fifty markets	Second fifty markets	Smaller markets	Outside all markets	Total
Total # of systems in U.S. (%)	849 (20)	424 (10)	1189 (28)	1740 (41)	4245 (100)
Number of systems responding (% of column)	257 (30)	175 (41)	315 (26)	405 (23)	1167 (27.5)
Number of systems used by all educational institutions (%)	132 (33)	83 (21)	94 (24)	89 (22)	398 (100)
Number of systems used by colleges/universities	55 (37)	34 (23)	34 (23)	27 (18)	150 (100)
% of sample	21	19	11	6.7	13
% of all systems	6.5	8.0	2.9	1.6	3.5

all U.S. systems) have channels used by a college/university as compared to the less than seven percent in those systems outside all markets (forty-one percent of all systems).

While the overall NCTA response rate was only about twenty-eight percent of all systems nationwide, it did achieve better response from the larger markets where the majority of educational access channels are found. Television Digest (1981) reported that as of 1 June 1981, 4,637 systems were operating in the United States (an increase of 392 over the number in 1979), 497 of which reported having some form of educational access. Because with both sources the information was supplied by the cable operator and the definition of "educational access" is very loose, these figures cannot be considered reliable indicators of utilization. For example, the Ames, Iowa cable system is listed in the NCTA survey as having university educational access even though the university was not using the channel for any programming whatsoever.

There are at least nine possible types of telecommunicative activity which can occur on a university campus. Although this study is interested primarily in access cable television utilization, both the NCTA and CPB survey must be looked at even though neither is sufficient for deriving accurate and complete data. The NCTA survey, because of its lack of rigor in defining "educational access," includes activity on these four types of signal delivery systems in addition to educational access channels:

1. Cable company-installed institutional loops
2. Cable company-operated local origination channel
3. Cable company-owned leased access channel
4. Commercial broadcast channels blacked out during duplicate programming

The CPB survey, because it was much more comprehensive and concerned itself with all forms of telecommunicative activity on colleges campuses, included educational access channels, the four listed above, and the following possibly cable-related forms of signal delivery:

5. School owned CCTV systems
6. Point-to-point over-the-air transmission (such as CARS microwave)
7. Low-power broadcast television (ITFS, low-power, and UHF translators)
8. Full-power broadcast television (non-profit or commercial)
9. "Bicycling" of videotapes and video equipment

Table 2 shows that of the 2812 two-year, four-year public and four-year private colleges responding to the CPB survey, 2129 (seventy-six percent) used television in ways other than digital data transmission. Of these, 735 offered full-time courses, 1089 used television only as an instructional supplement and another 305 used it for informational (non-instructional) purposes only. Although far fewer in number, public four-year colleges used television much more frequently than the other two kinds of institutions (ninety-two percent as compared to seventy-two percent for two-year colleges and sixty-three percent for private four-year colleges).

Table 2. Educational institutions' use of television

	Two-year colleges (n=1154)	Four-year private (n=1386)	Four-year public (n=453)	Total (N=2993)
For full-time courses	370	172	193	735
As instructional supplement	375	521	193	1089
For informational purposes	88	187	30	305
Total (% of N)	833 (72)	880 (63)	416 (92)	2129 (71)

Source: "Higher Education Utilization Study: Final Report," (Dirr and Katz, 1981) p. 6.

As seen in Table 3, 386 public four-year institutions used television for either full-time or supplemental instruction. Of these, forty-five (twelve percent) identified a cable television system as their sole or primary television outlet; 160 (forty-one percent) reported a CCTV system; ninety-seven (twenty-five percent) reported a public television station; twenty-one (six percent) a commercial television station; and sixty-three (sixteen percent) some "other" outlet such as those identified as numbers six, seven and nine in the above list.

Table 3: The sole or primary outlet for institutions using television for instruction

	Two-year colleges n=745 (% of n)	Four-year private n=693 (% of n)	Four-year public n=386 (% of n)	Total N=1824 (% of N)
CCTV	300 (40)	310 (45)	160 (41)	770 (42)
Public TV station	191 (26)	105 (15)	97 (25)	393 (22)
Cable system	81 (11)	37 (5)	45 (12)	163 (9)
Commercial TV station	73 (10)	32 (5)	21 (6)	126 (7)
Other*	100 (13)	209 (30)	63 (16)	372 (20)

*Microwave, ITFS, low-power TV or bicycling of tapes and/or equipment

Source: "Higher Education Utilization Study," (Dirr and Katz, 1981) p. 9.

Table 4 shows how these outlets are utilized by all institutions as reported by CPB. Cable systems and commercial television outlets fulfill most of the information/outreach needs of educational institutions. Over a quarter of the telecommunication activity at a college/university is for this purpose. The bulk of activity, on-campus instruction, is handled by CCTV and "other" systems of delivery.

Table 4. Major telecommunication activity at colleges and universities

	On-campus instruction	Information/ outreach	Off-campus instruction
Percentage of all activity	43	26	21
Principal delivery systems	CCTV & "Other"	Cable & Commercial TV	Public TV & Commercial TV

Source: "Higher Education Utilization Study," (Dirr and Katz, 1981) p. 10.

Consortia

Consortia, through which two or more institutions join forces in either production or distribution of primarily instructional programming, have been increasingly prevalent throughout the United States. These consortia can be local, regional or statewide. The CPB study (Dirr and Katz, 1981) found that twenty-nine percent (111) of all public four-year institutions utilizing television for full-time courses are members of consortia. The survey also found that whether an institution was a consortium member was related to its sole or primary television distribution outlet. In decreasing order of likelihood that the institution is a consortium member, they are: commercial television station, a public television station, a cable system, a closed-circuit system, and "other" means to deliver its instruction.

Cable networking in the form of consortia is a relative newcomer to education and the potential for expansion is great. Some perspective is given to this statement by the fact that in 1980 only about nine hundred of the 4,300 cable systems had more than twelve channels available to their subscribers (Dirr, 1981). Only a handful of these nine hundred had an empty channel to dedicate to institutional use. In addition, only about 1100 systems in the nation at that time had subscriber bases of more than 3,600 each. This means that before a consortium could find an audience big enough to make it cost-effective, chances are that quite a few communities would need to be interconnected.

Most of the existing consortia, a few of which are profiled in this section, are local or regional in their impact, and little if any documentation exists on their numbers. On the statewide level, surveyors Gruebel, Robison and Rutledge (1981) found ninety-eight educational organizations which lease or own and operate 137 systems in forty-four states. The study, however, did not include those consortia which rely on cable systems, videotape bicycling or local ITFS for their system of distribution. (This omission should not affect their results too much because as the CPB survey pointed out, these three forms of distribution represent just a small fraction of the methods that consortia members use.) The study also did not include computer data transmission networks unless the networks also carried electronic instructional or educational messages.

The researchers reported that of the ninety-eight consortia, forty-three lease telephone lines, forty-eight own their own system of transmission, and seven are in some form of combination lease/loan arrangement. Of the ninety-eight, thirty-nine are public broadcasting stations which supply network interconnects for themselves alone (only six also service other agencies or institutions), and the other fifty-nine are multi-purpose--thirty-five of which support higher education institutions.

It can be seen from these data that while almost all four-year public institutions use television on their campuses, a relative few have availed themselves of the opportunity to use broadband technology for instructional and informational purposes. Few of these have depended on their local community cable system, and fewer still have been fortunate enough to have even one access channel dedicated to their sole use.

Consortia seem to be increasingly important as a way to share facilities, programming, audience and/or expenses. Before the concept can be widely used in an efficient manner for off-campus purposes however, the now meager number of local, state and regional interconnects will have to increase considerably. The potential for this expansion is great, and will become greater still as the nation's cable television system improves, local systems' franchises force upgrading, and satellite transmissions increase.

Demonstration Projects

One of the most ambitious telecommunications demonstration projects was one funded by the U. S. Department of Education. The program, administered between 1976 and 1981, awarded grants totalling $3 million to fifteen projects, four of which involved cable television. Only two grantees, Pennsylvania State University, and KSPS-TV in Spokane, Washington involved cable in higher education. Because funding for the program was abruptly ended, evaluation could not be completed. The director of the program, Ann Erdman, made a number of observations which she feels may help planners avoid implementation problems which these projects faced (Erdman, 1981).

> 1. For long-term operation, it must be assured that the technology is accepted, and the community or organization is prepared to deal with implementation problems.
>
> 2. Reliable equipment and effective maintenance policies are essential.
>
> 3. Adequate training and support are critical to the effectiveness of the on-site facilitators and acceptance of the service by end-users.
>
> 4. The use of highly-specialized equipment demands about fifty percent more time for implementation than if readily available equipment is used.

5. Staff must be carefully selected with respect to dedication to project success and must be willing to make at least a three year commitment.

6. Projects should have short-term as well as long term goals, so as to be able to show incremental gains for funding purposes.

7. Substantial resources must be allocated in order to assure the systems attain their service goals and develop user acceptance and support.

8. The most successful demonstration projects were those which used telephonic communication--one of the oldest, most reliable, and most accessible telecommunication system in the U. S. Therefore when planning a demonstration project, it is best to look first at the most accessible, familiar, multipurpose communications systems available in the area, and then, if necessary, enhance these systems to meet the needs of the target audience with the most reliable and appropriate of the new technologies.

The following are profiles of the two cable television projects, both influenced and/or supported by funds from this Department of Education program: PENNARAMA and Washington State University.

PENNARAMA PENNARAMA is a statewide educational cable network, interconnected by coaxial cable and CARS microwave. It is administered as a joint effort between Pennsylvania State University and PECS, the Pennsylvania Educational Communication System.

Although Pennsylvania has the most cable systems in the U. S., it also has the oldest. As a result, few carry more than twelve channels. This fact, compounded with the plethora of commercial networks and services available, created the challenge of convincing hundreds of local cable operators either to dedicate a separate educational channel or open up brief periods during the day when duplicate programming permits this programming to be cablecast. Further, it was necessary to convince educators, affiliated with many different school systems and higher education institutions, that they should assist in promoting the PENNARAMA program in their community and with the local cable operator.

With the assistance of the Pennsylvania Cable Television Operators Association, the project has burgeoned since its inception. Reaching over 140 communities, it operates twenty-four-hours-a-day with six repetitions of one different four-hour block of instructional programming each day. The majority of the programming is supplied by Penn State, educational program suppliers such as Appalachian Community Service Network, and member schools of the Pennsylvania Association of Colleges and Universities. Occasionally the schedule is interrupted for special live and taped programs.

PENNARAMA has plans to increase its non-formal instructional programming with in-service training, teleconferencing and satellite delivery. In addition, teletext services will be added to improve its utility to small businesses, government agencies and clientele of the state's cooperative extension service (Phillips, 1981).

Washington State University This university of 17,000 students is located in Pullman, Washington, a small college community of about ten thousand permanent residents located in the rolling Palouse Valley, seventy miles south of Spokane. The university has no television station of its own, but has had a two-channel CCTV system operating for the past twenty-five years. The system goes to all dorms and most buildings on campus and is currently being completely re-wired with state-of-the-art A-B coaxial cable technology with sufficient capability for two-way communications.

The school also had two access channels in the local community twelve-channel cable system, but because of channel squeeze is currently only programming one of them. The local system, owned by Cox Communications, is being upgraded to a twenty-eight channel system.

Originally the community cable and the university CCTV systems did not interface; however, an arrangement was made between the two parties with the university's Department of Food and Housing agreeing to pay for the interconnect.

The school is a member of the Cable Advisory Board for Learning and Education (CABLE), a fifteen-member consortium headed by KSPS-TV, a public television station licensed to the Spokane Public School System and organized with funding from the DOE. CABLE administers the use of the five educational access channels on the city's thirty-five channel system to which WSU is interconnected by microwave. This interconnect is used for one-way video and two-way audio for off-campus telecourses and alpha-numeric information. Other colleges sharing these channels are Gonzaga University, Whitworth College and Eastern Washington University.

Washington State will soon put into operation a full two-way microwave hookup with the University of Idaho, another public university about seventy miles to the east. These two schools have shared professors and students for many years, but only recently, when the Dean of the College of Engineering at Idaho who was particularly interested in telecommunication applications in education became a vice president, was it decided to upgrade the entire campus CCTV system and to install a microwave link to eliminate the long and often treacherous commute over the Snake River canyon between the two schools (Hardie, 1981).

Brief case studies

The Association for Higher Education of North Texas

This non-profit organization utilizes eight dedicated channels of transmission, four of which are scrambled ITFS broadcast frequencies, and the other four open cable access channels.

The organization was first incorporated in 1967 (called TAGER) with funds donated by the president of Texas Instruments in order to improve educational opportunities for electronics engineers in the region. Originally it was intended that the nine colleges and universities in the Dallas-Ft. Worth region would actively participate in the programming. (Application to the FCC by an educational institution was, and still is, a requisite for acceptance and licensing of ITFS systems.) Today, however, although it offers 150 courses a year, the system is almost unused by these institutions, and it relies on tuitions paid directly to the non-profit corporation by the (mostly) engineers who subscribe to its courses.

This drift away from the association's original interest in public higher education can be seen in the character of its board of trustees. Once comprised primarily of representatives from the area colleges, two-thirds are today lay people from the business community. Other ITFS operations in the United States are also, as a general rule, engineering oriented. Some major systems are sponsored by Stanford University, the universities of Maryland, Southern California, Minnesota and Michigan, and the Georgia and Illinois Institutes of Technology.

Most of the association's resources are funneled into the four scrambled ITFS frequencies which are seen only by those consumers who have proper decoding equipment in their homes. Considerably less attention is paid to the four access cable channels that are shared with four other regional educational consortia. General interest and information type programming is cablecast on these channels each weekday evening for eight hours, with little of it produced by the member higher education institutions.

With its thousands of students, who every year pay premium prices for advanced coursework which keeps them current in their profession, the association is enjoying great economic health in spite of, and independent from its member colleges which contribute essentially only their names but which receive no remuneration in return (Wing, 1981).

University of Missouri This university, located in the city of Columbia, makes limited use of the one access channel allotted to it. The reason that the college has not developed its channel further is open to conjecture; however, a possible partial factor was volunteered by a local journalist/graduate student (Sante, 1981). He stated that before cable arrived in Columbia, there had already existed a sufficient number of media outlets on the campus and surrounding community successfully integrated into the university curriculum.

When the cable franchise was first let, two of the thirty-six channels were dedicated to access--one as a combination public access/local origination channel and the other for the university. Even though the school was supplied with an RF-modulator, it soon became clear that the university had no intention of using its channel, and as the pressure increased for the cable operator to add more commercial services onto the system, the modulator was returned to the cable company who then combined the two access channels. This opened up one channel on which the operator could add another commercial service.

Today the University Extension Service occasionally submits general interest videotapes and University of Mid-America telecourses on the remaining channel--now shared with public access and the for-profit local origination programming produced by the local cable company.

The city of Columbia is well-supplied with outlets for media, and most of them have some relationship with the University. First, the cable company accepts about seven students each semester who fulfill partial course requirements at the company. Second, there are three newspapers, one nationally award-winning, which service the community and which rely on students in journalism and internships in their daily reporting and publication. Third, there are three FM stations, two of which are operated by the university, and the third publicly-owned, but used extensively by the school. Fourth, the city's only television station is fully commercial--an NBC affiliate--but also licensed to the university. Its program director is a professor in the School of Journalism, and all students fulfill any broadcast course requirements they might have by working under his direction.

It would seem then, that because of so many existing media outlets, cable television has been ignored, even for its data transmission utility.

Syracuse University Syracuse is a private institution with two student-operated closed circuit television channels. For most of the time these channels display character-generated messages. There is no instructional cablecasting, but in-house productions and rental programs (mostly movies) are shown each weekday from eight PM to two AM on one of the channels by University Union Television, a completely student run operation. The other channel is used occasionally by the Newhouse School of Communication for laboratory production purposes.

The local cable system has thirty-six channels, and in the Spring of 1982 it will be interconnected with the campus CCTV system at the Union for sharing of local origination and access programming. The major dormitory lounges, the Newhouse School of Communication, and the library are presently wired to receive the two CCTV channels (Hoffman, 1981).

San Diego State University The city of San Diego is one of the most heavily subscribed cable communities in the United States. This fact has not necessarily helped the university, however, because it has no access channels allocated to it in the local franchise. The school has a twelve-channel CCTV system which is used exclusively for faculty support purposes in about eighty classrooms around campus.

Community educational needs on and off campus are coordinated by the university-licensed and operated public educational television station KPBS. In addition to its UHF transmissions, KPBS administers three ITFS frequencies which are used primarily by the county school systems during the day and the local community college in the evening. The university itself tried to enter the at-home telecourse market, but enrollments were too low due to prohibitive tuition costs, and service was discontinued.

Cox Communications, the local cable company owner, has begun testing its two-way interactive data exchange system called INDAX. Similar to Warner-Amex's Qube, it will enable full addressability to programs, but will be more advanced in that it will allow interfacing with home computer terminals for computer-assisted instruction and teletext retrieval. The service will be offered on-campus through the CCTV system (Becket, 1981).

Michigan State University   MSU combined its instructional development section with the university-owned public television station to create a new entity called "Instructional and Public Television Department" as a division of its Lifelong Education programs. It employs ninety full-time employees and fifty part-time students and interns.

About five percent of all course credit hours are video-based at Michigan State (Dranov, Moore and Hickey, 1980), with most of these in introductory level economics, accounting, biology and computer programming. Three local cable systems each carry MSU's two access channels of approximately one-hundred hours a week of programming, eight AM to nine PM each weekday.

At the present time there are two-hundred dorm sites, classrooms and laboratories in twenty-six buildings capable of receiving these two access channels plus ten other channels. MSU's developmental plan, when completed, will connect thirty-one buildings (thirty percent of the university plant) with an A-B-C coaxial linkup. One cable will be dedicated to two-way data communications, another for ITV applications, and the third reserved for later applications such as CATV programming, data banks, facsimile and electronic mail. Each cable will have a three-hundred megaherz bandwidth capability, and because the greatest user of bandwidth (a television signal) only consumes six MHz, the system will have enough capacity for many years to come (Coon, 1980).

With a library of over 3800 instructional tapes and a long history of telecommunication in education, MSU has been able to design and adapt the technology to fit many instructional requirements. Five distinct types of ITV utilization can be identified in its Spring, 1981 sampler brochure of its most popular offerings:

1. Entirely pre-recorded and viewable at the students' convenience. Teaching assistants are available at designated locations during certain cablecast sessions, but on-campus attendance is required only for examinations.
2. Pre-recorded, viewable at the student's convenience, but an equivalent amount of time is required each week in either laboratories, or consultation sessions with the instructor. Attendance is also required for examinations.
3. Videotape offered at one specific time and place on campus at which attendance is required. After the tape is shown, the instructor is present to answer questions and offer supplemental material and administer tests.
4. Videotape offered at one specific time and place on campus. Attendance is not required, but teaching assistants are present to deliver additional instruction, and drill and practice.
5. Traditional live lecture situation, except some sessions are videotaped for review at the student's convenience.

All the instruction from the first four types is offered at least two times per week over the cable system in addition to the time scheduled in the catalog. In this way, a student can view missed lessons, or utilize them for review or practice.

Michigan State does not depend on consortium membership nor on federal funding to support its broadband cable efforts.

Iowa overview Aside from Iowa State University, other institutions in the state of Iowa have access to a broadband telecommunication system, including Kirkwood Community College in Cedar Rapids, University of Northern Iowa in Cedar Falls, Drake University in Des Moines, and the University of Iowa in Iowa City.

Kirkwood Community College With federal funding, Kirkwood had been able to successfully integrate two-way CARS microwave, ITFS and cable technology for the region's one educational access channel. The channel is shared by a twelve-member consortium comprised of, in addition to Kirkwood, two small colleges, four public school systems, a public library, an area state education agency, two hospitals and one parochial school system.

Eventually, the system will have seven "Telelinks" (four are presently operating) which are two-way microwave communication systems. The consortium also has been assigned four ITFS frequencies with with to reach distant rural locations not serviced by cable.

Within the system there are eleven origination classrooms. The entire system is controlled and coordinated from a telecommunication control center located at Kirkwood, where live and taped instructional and informational programming is switched and routed throughout the network with total flexibility. On the Kirkwood campus proper, there is a thirty-six channel access system to all locations on campus which is used to transmit its collection of about 4,000 instructional programs.

University of Northern Iowa The coordinator of television and radio here has unilaterally taken steps to organize the community's educational, municipal and community access channel users into a consortium. At the present time programming is primarily instructional, but he hopes to expand the variety of programming in the near future. The university has on its campus a closed-circuit system which can be accessed in seventy-five classrooms.

Drake University The Des Moines Area Consortium for Higher Education is made up of Des Moines Community College, Grandview College, and Drake. The consortium collectively owns a character generator and it coordinates the three-members' utilization of the city's one educational access channel. Drake's (the principal user) and the other institutions' programming is transmitted in a co-mingled fashion between 8:30 AM and 8:00 PM each weekday.

University of Iowa The Iowa City cable system includes five access channels, only one of which has been allocated to the University of Iowa. At this writing, it is as yet unused.

Summary

Because most educational applications of the new communication technologies began their development only since about 1976, cable television utilization patterns have yet to emerge. Utilization is spotty and generally supported by an active on-campus CCTV system. Often successful development has been the result of efforts of pioneers willing to find federal support or to organize consortia. If left undeveloped, cable access channels have been lost back to the cable operator, or extremely underutilized for non-instructional purposes.

CHAPTER III. PROCEDURE

Overview

This chapter is divided into two sections: (1) Design and Operation of Cablexpo, and (2) Evaluation of Cablexpo. The first is a detailed chronology of the planning and execution of the demonstration project. All major events and decisions occurring between 11 November 1980 and 6 May 1981 have been chronicled here and have been segregated into these six functional areas: Proposal and Initial Contacts, Fundraising and Budgeting, Staffing, Identifying and Enlisting Participants, Publicity, and Cablecast Preparations. A diagram showing the relative time span of each of these areas can be found in Chapter IV FINDINGS, herein.

The second section of this chapter, Evaluation, describes the survey and other data collection which accompanied the demonstration project. The survey was comprised of a two-part telephone questionnaire. The first part was administered in the ten days immediately prior to Cablexpo's public announcement, and the second during the thirteen days immediately following the conclusion of the Cablexpo cablecast.

Design and Operation of Cablexpo

The working guidelines

Throughout the design and operation of Cablexpo, an attempt was made to follow the guidelines discussed in Chapter II, above. In addition, the following more precise guidelines were articulated a number of times by various means to the staff, participants and observers of Cablexpo:

1. A broadband cable communication system should be neither administered nor utilized solely by one or two departments or services on campus. Although certain entities have an affinity for tele-communications, the technology will not be soon adopted if allowed to gravitate to a single form of utilization. For this reason, special efforts should be made to attract support, staffing and programming participation from as many quarters of the university as possible.

2. Responsibility for the design and completion of a program should rest primarily with the volunteer producer. If requested, advice or production assistance could be offered by others involved in Cablexpo, but production assistance would be provided only in cases of extreme need. This guideline would have two effects:

> a. The naturally-occurring diversity of interests among the variety of groups and individuals on campus would provide similar diversity and variety in programming

b. Both the demands made by the Cablexpo volunteer producers for media production assistance and the responsiveness of the existing University systems to meet those demands would be monitored by Cablexpo. Because one of the purposes of Cablexpo was to test the preparedness of the University to meet the demands of access cable programming and not to see whether a crack team of media specialists temporarily gathered for a week could present a week of broadcast-quality programming, existing resources would determine the results of the experimental demonstration.

3. *Access cable television should be initially a user's, not a viewer's medium.* This is true in two respects: (1) that cable technology's greatest potential is in its interactivity--as a communications tool in which a "viewer" does not exist, and (2) that access cable gives to every individual and group the capability to utilize a medium that until recently was the domain of a privileged few. Because the first, interactivity, is not yet a possibility at ISU, the second concept can be broached. In order to do this, however, every opportunity must be taken to: (1) demystify the technology, (2) make it available equally to all, and (3) encourage the learning how to use it.

Proposal and initial contacts (11/11/80 to 2/24/81)

The first three faculty members to hear the researcher's idea for Cablexpo were the members of his academic committee during an 11 November 1980 meeting. As preparation for the meeting, the idea was discussed a few days before with a repected administrator of a major University service and with a student member of the Telecommunicative Arts (TCA) Production Club who was writing a proposal outlining future access channel utilization possibilities for the club. These meetings were helpful and encouraging.

During the next three days, four exploratory meetings were held with several key students, professors and middle-level administrators to begin to line up support for the idea and to identify potential problem areas. The first of these was with the TCA Production Club faculty advisor and the chief technician of the TCA television studio. These two individuals were considered essential to the effort because within their facility was located the only accessible origination point on campus to the cable company headend. Also, because the TCA Production Club proposal was being prepared [the intent of which was to suggest TCA's ongoing utilization of the cable channel(s)], it was deemed better to encourage cooperative action rather than allow competitive feelings to develop between us.

On 13 November 1980 a meeting was held with the two student co-chairmen of the University's spring celebration called VEISHEA. It was suggested to them that the cablecast might occur during the week of VEISHEA activities, May 6 to 10, 1981. (It was felt that the association might prove helpful in logistics, programming, and possibly, funding.) The researcher made clear that the cablecast would not be an official VEISHEA event, but that the opportunity was there for VEISHEA to use the cablecast as a means to advertise, and possibly cablecast events. No commitments were made by either side, but the chairmen were enthusiastic and arranged for a subsequent meeting of the researcher with the VEISHEA publicity co-chairmen. A parting comment was made by one of the co-chairmen that due to lower-than-normal profits from the year before, VEISHEA was short on funds. This comment was interpreted as a signal that any future requests for money would be met with resistance. This did not seem important at the time because not only did we wish to keep Cablexpo's autonomy, we also did not then regard funding as a major problem.

The third meeting was with the assistant chief engineer of the campus commercial television station, WOI, on 14 November 1980. The purpose of this meeting was to alert the station to our plans and to inquire as to the feasibility of using parts of the old campus CCTV system for our cablecast.

That same day the director of the Media Resources Center was presented with the plans for the cablecast. Because the director was the former chairman of the University cable committee, and because his organization provided media production support to the campus, whatever cooperation and support his organization could provide was also deemed important to our effort.

It was hoped for these four meetings that Cablexpo might catch the imagination of some key people. Interest seemed to be concentrated in the two academic areas which had the most to gain by the channels' utilization as a broadcast laboratory: Journalism/Mass Communications (JLMC) and the TCA area of the Speech Department. But because even in these two areas the lack of progress with cable on campus had caused discouragement and disappointment, the author felt a new urgency to channel what interest remained into some cooperative effort. Otherwise, the proprietary concerns voiced by a number of individuals over what they perceived as arbitrary decisions regarding the cable committee's recommendations for locations of cable installations might intensify.

Early in this formative stage of Cablexpo an outline of the project was submitted to the Vice President for Information and Development for his information and approval (Epler Wood, 1980). He, as well as the Vice President for Academic Affairs, provided the first indication from the upper-level University administration that Cablexpo could take place on the school's access channels. Although only verbal, this "approval" was deemed sufficient to defend Cablexpo's activities should the need arise.

To improve Cablexpo's legitimacy, and because the project was to involve a large number of students and would require a budget, mail service and other necessities, it was judged advisable to register it as a campus organization with the Office of Student Life. The writer's name was given as Cablexpo's president and the name of his major professor as its faculty advisor.

With preliminary arrangements accomplished, it became possible to concentrate on efforts to identify possible problem areas and develop allies and resources. A particularly fruitful meeting was held with the general manager of WOI-TV and his administrative assistant on 26 January 1981. Because it was felt that (1) there was a controversy surrounding the definition of fair and proper access to WOI production facilities by students, academic areas and Media Resources, and (2) cable television had long been considered a bane to commercial broadcast television by industry managers, it was expected that the idea of ISU developing a cooperative relationship with the local cable television company would create concern.

These fears were seemingly unfounded because the Cablexpo idea was warmly received. It was WOI's general manager's stated position that if the University were to develop its cable production facilities, this would serve the needs of student media production better than the present conditions allowed. On other matters, he agreed to commit his technical staff to help Cablexpo revive the existing campus CCTV circuitry, and he expressed little concern over our intention to cover the VEISHEA parade and activities--a telecast traditionally done by the station.

On 14 January 1981 another meeting was held with VEISHEA, this time with its publicity chairmen. They two students agreed to arrange for Cablexpo to present its plan to VEISHEA's board and faculty advisor the next evening. That body was enthusiastic that Cablexpo might be able to help in VEISHEA publicity and coverage in the future, if not this year. It was explained to them that because Cablexpo was, like VEISHEA, a participant's event, it was looking for volunteers to provide programming. It was made clear that Cablexpo did not want money, but only an endorsement which could later be parlayed into participation from VEISHEA participants.

A meeting was held on 30 January 1981 at TCA with four individuals: the TCA Production Club advisor, TCA's acting chairman, TCA's chief technician, and a student playing a triple role as a TCA teaching assistant, the cable company's local origination equipment manager and Cablexpo's chairman for Equipment Procurement. At this meeting it was discovered that the TCA leadership did not think it wise to use the origination point located in their facility for Cablexpo or any other cable transmissions until approval of a TCA Production Club proposal to use it was obtained from the

Vice President for Academic Affairs (VPAA).

Both parties agreed to proceed with the Cablexpo plans until this approval was received. Meanwhile, the VPAA established a new committee on 15 February 1981. It was this committee, the Iowa State University Committee on Cable Television and Computer-Assisted Instruction, which finally approved the proposal on 10 March. This, then, cleared the way for Cablexpo.

Following the approximate end of this period of preliminaries (about 1 February 1981), most efforts were directed toward fundraising and staff formation. But as late as February 24, one major meeting was held, which could also be considered formative. Held in the TCA studio and fairly well-attended by eleven key representatives from faculty and University services, the meeting was called to introduce to the group the seven Cablexpo staff members who were in attendance and to explain in detail the purpose and operation of Cablexpo.

The principal topics of concern to those attending were: (1) quality of original productions, (2) the extent of involvement by Heritage Cablevision, and (3) the ability for the event to be viewed on campus. Also of concern, but less so, was how Cablexpo's operations would be affected by the Government of the Student Body's recent refusal to fund Cablexpo (see "Fundraising and budgeting," below), and the question of availability of production equipment. The outcome of the meeting was positive and Cablexpo was able to move ahead.

Fundraising and budgeting (1/13/81 to 4/15/81)

For a student organization at ISU, the most logical place to seek funding is from the Government of the Student Body (GSB). Cablexpo began this process with a meeting on 13 January 1981 with the GSB's treasurer (also the chairman of its Finance Committee).[1] Although the treasurer said that most of the funding for the present academic year had been decided upon, there yet was an opportunity for Cablexpo to be considered. A budget (Appendix E) would need to be submitted to him by 7 February 1981 and a personal presentation would have to be made by the president and faculty advisor of Cablexpo at the next Finance Committee meeting on February 14.

This was done, but Cablexpo's request for $1100 was denied by a vote of five to two. According to the minutes, the key reasons were that funding Cablexpo would be "subsidizing" Heritage Cablevision, and that "the only people who are going to receive it are the people who have cablevision." One influential member added, "I think it is an advertising project and I don't think we should be giving them a penny."

The ISU Daily ran a page one story on 18 February regarding the decision (see "No funds, but Cablexpo not dead," Appendix C), and the author was interviewed by student radio station KPGY-AM for a story on that day's noon news. The vote was also of great concern to the Cablexpo staff members and its faculty advisor, but the author assured them that Cablexpo would continue, and further efforts would be made to raise money from the GSB just as money-raising efforts were continuing in other areas.

Working through the Graduate College and the College of Education, some financial support was obtained. A total of $550 was raised in this manner through three contributing agencies: Research Institute for Studies in Education, $200; the Graduate College, $200; and the Graduate Student Senate, $150.

Two other ideas for funding had also been investigated, but neither had proved fruitful. The first was with local and state agencies which grant support to the arts and humanities. (Iowa has very few public funds available for the arts, and the money that is available must be applied for at least a year in advance.) The other idea was to approach the City of Ames Cable Commission. This group could not provide support because they had made a decision three-months earlier (approved by Council) that all franchise fee income must be directed to the purchase of municipal and public access channel production equipment.

It was discovered near the end of February that it would be possible to appeal the GSB Finance Committee's rejection if the GSB Vice President and Treasurer were to introduce a special bill to the full senate. On 19 March 1981, these two officers were shown newly compiled data from this study's pre-test survey which showed a high degree of interest by the student body for participation in cable programming. The officers said that if they could be given a revised budget, they would submit a bill in behalf of Cablexpo. The new budget (Appendix E) was delivered within ten days.

Although the GSB Vice President said that the bill would be discussed at the next Senate meeting (March 26), it didn't reach the floor until the following session, April 2. During this two-week wait, copies of Cablexpo newsletters were distributed to all senators, and some lobbying took place which helped to identify weaknesses and strengths in Cablexpo's arguments. It was found that the senators' greatest concerns were the same ones which had been expressed in the Finance Committee meeting of February 14.

The revised budget and remarks were presented by the author to the GSB senate at 11:30 PM on the evening of 2 April 1981. After one question was answered regarding a student's capability to view Cablexpo, a motion was carried to adjourn and postpone the discussion until April 7.

At the April 7 meeting (announced in the ISU Daily--see Appendix C), and again near midnight, the bill was re-introduced. The author was unavoidably absent, and so three staff members who attended the meeting answered questions in two principal areas: (1) the lack of cash support from Heritage Cablevision and VEISHEA, and (2) the concern that students' money was being asked for to "help someone achieve their degree." After the discussion, a motion was carried to reduce the amount from the $935 requested to $500, and the amount was granted. The decision was reported on page one of the 6 April 1981 Daily in "GSB wraps up group funding" (Appendix C).

Aware for some time that the $1500 in the original budget for the planned afternoon of access cable programming scheduled for 10 May 1981 would have little chance of passage with the GSB senate, the author took up this portion of the budget with GSB's autonomous Committee on Lectures. This committee, comprised not only of students but also of staff and faculty, had concerns somewhat similar to those of the Senate, but was more receptive to Cablexpo's arguments. On 15 April 1981, the committee approved the $1376 as requested, with one requirement: further attempts should be made by Cablexpo to solicit funding from other departments and groups on campus, and the amount raised from this effort shall be subtracted from the amount granted.[2]

Another source of non-discretionary funds was the Cablexpo volunteer producers themselves who were asked to contribute, in a pro-rata manner, to the cost of a two-page program schedule which was eventually printed as the centerfold of the 7 May 1981 ISU Daily (Appendix C). Each participant was asked to pay $5 for the first detailed mention of their program in the schedule, and $2 for a second more abbreviated listing if they requested a repeat showing.[3]

One final area was looked at for funding. During the April 7 GSB hearing, one of the senators suggested that we should approach the ISU Alumni Development Fund. Although it seemed rather late to do so, a meeting was arranged for 14 April between the Fund's director and the author. A fairly receptive atmosphere during the meeting made it seem that there was a good chance of funding; however, a call from the director the next morning indicated they could not fund the effort. In addition to the short notice, apparently the director thought that the tie-in of Cablexpo to the author's master's thesis work would make it appear that if the Fund were to donate money, it would be supporting academic research.

The results of the entire funding effort are discussed in Chapter IV FINDINGS, below, and summarized in balance sheet form in Appendix E.

Staffing (1/21/81 to 5/10/81)

It was necessary to recruit volunteers from the student body to fill the staff needs of the Cablexpo project. By mid-January 1981 at least two students had offered their support, but certainly many more were needed. Three hundred fliers were photocopied (Appendix B) and beginning 21 January 1981 these were distributed during a series of volunteer recruitment visitations. Presentations were made to: (1) five media- or communications-related classes, (2) one TCA Production Club meeting, and (3) one business-related student organization meeting.

To make the event more attractive to volunteers concerned with a return on the investment of their time, the potential of cable as a growing industry was emphasized, and the possibility of getting academic credit for their work was also pointed out. (Although this latter benefit at first seemed plausible and attractive to students, only one graduate student, out of about four students who inquired, eventually availed himself of the opportunity.)

Each of the volunteers from this first wave of meetings was telephoned prior to an organizational meeting held February 12 in a conference room in the Iowa State Center complex. One display and two classified ads were placed in the ISU Daily prior to the meeting (Appendix C). Scheduled on a Saturday morning during a particularly heavy testing period, the meeting was not well-attended (n=10), and many telephoned to apologize for not being able to come. Three who phoned responded because of the newspaper advertising.

At this meeting, a videotaped endorsement and good will message from the local cable system manager was shown, and the purposes, goals and plans for Cablexpo were discussed. Cablexpo's administrative committee structure was presented in graphic form by means of an overhead projector transparency (Figure 2). Following a period of questions and answers, individuals selected specific committees in which to work, and meetings of those committees were scheduled for the following week.

The Cablexpo administrative structure was divided into two broad divisions: Programming and Operations. Originally it was predicted that those individuals more interested in administration would gravitate to the Programming side and those more technically or production-oriented to Operations. But as discussed below, the structure had to be later modified to keep it viable.

Within Operations, three separate committees were envisioned: (1) Publicity, which would handle public outreach and internal communications for the organization; (2) Equipment Procurement, which would coordinate hardware and cable hookups for the cablecast and answer technical questions for staff and participants when necessary; and (3) Cablecast,

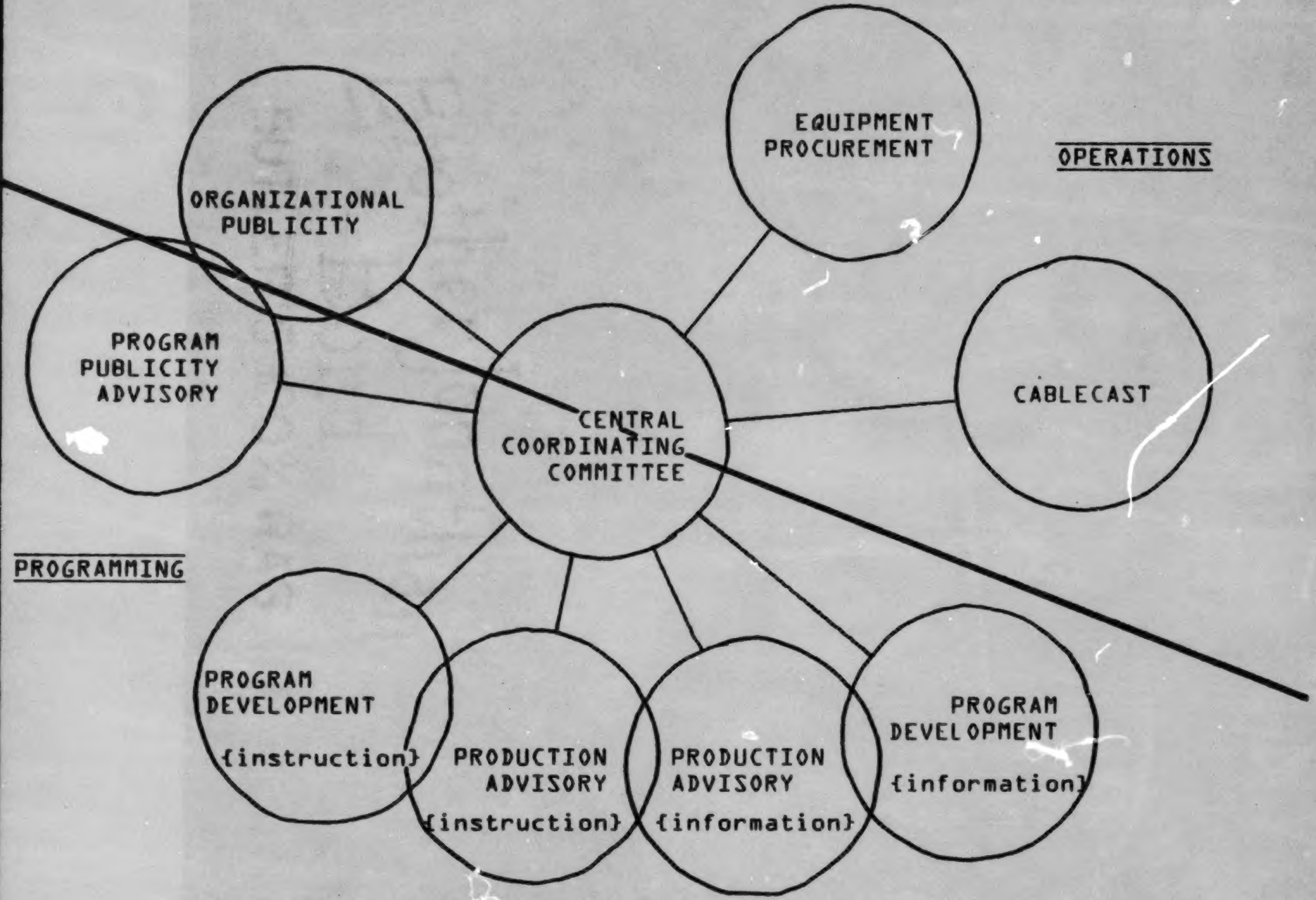
EQUIPMENT PROCUREMENT
OPERATIONS
ORGANIZATIONAL PUBLICITY
PROGRAM PUBLICITY ADVISORY
CABLECAST
CENTRAL COORDINATING COMMITTEE
PROGRAMMING
PROGRAM DEVELOPMENT {instruction}
PRODUCTION ADVISORY {instruction}
PRODUCTION ADVISORY {information}
PROGRAM DEVELOPMENT {information}

Figure 2. Cablexpo functional organization chart

which would staff and manage all logistics and support mechanisms for the operation of the cablecast.

The Programming division was divided into the two areas with which this study was dealing: Instructional and Informational. It was felt that this dichotomy in administrative structure would parallel the two major uses of cable technology at a university, and make the administrative structure more responsive to the needs and interests specific to individuals and groups within these two areas. The internal structure of both, however, would be essentially the same. The Development committee would work administratively with volunteer producers to help keep program ideas within the realm of possibility and to point out potential hazards. If necessary, they would refer the producers to their respective Production Advisory committees.

Finally, the Program Publicity Advisory committee was designed to serve the Programming Division in stand-by status--ready when needed to help producers to advertise their programs. The author included this committee in the administrative structure because it was strongly felt that access channel program producers must make extra effort to notify their target audiences of the time and channel of their programs.

Those volunteers from the first wave who were found to be reliable and committeed soon numbered less than half of the original group. It was therefore decided, rather than embark on another organized recruitment campaign, to consolidate the original eight committees to three, as shown in Figure 3. First, the distinction between Instructional and Informational developmental areas was dissolved to create one Program Development and one Production Advisory committee. The former stood alone and the latter was combined with Equipment Procurement and Cablecast to create one major division called Production. All Publicity functions were consolidated into one other division, and Central Coordination tied together all three. Between February 16 and 21, these three new divisions met for a total of five times during which stronger commitments were sought from the staff members by way of assignment of individual responsibilities and tasks.

Identifying and enlisting participants (2/18/81 to 4/15/81)

Identified as Program Development[4] in the Cablexpo staff literature, this procedure followed an outline formulated to build diverse participation in the project as efficiently as possible. Briefly, the plan was to assign names of faculty, staff and students derived from the study's pre-test survey to a number of Program Development committee members. Hopefully, this personal solicitation in conjunction with publicity about the event in various media would provide more than enough programming to Cablexpo.

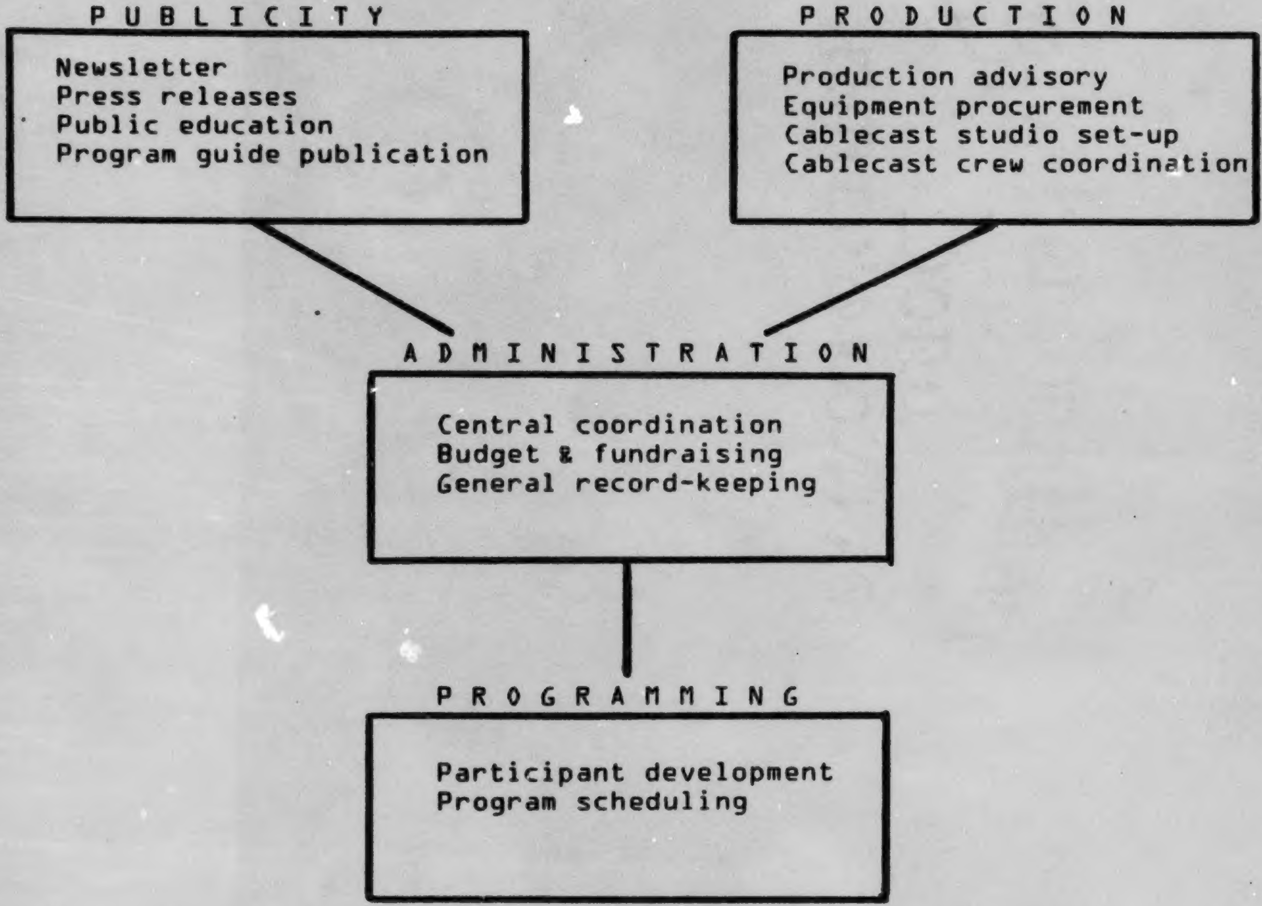
PUBLICITY
Newsletter
Press releases
Public education
Program guide publication
PRODUCTION
Production advisory
Equipment procurement
Cablecast studio set-up
Cablecast crew coordination
ADMINISTRATION
Central coordination
Budget & fundraising
General record-keeping
PROGRAMMING
Participant development
Program scheduling

Figure 3. Cablexpo functional organization chart, revised

Although all pre-test surveying had been finished by 6 February 1981, it was not until staff formulation was complete, final examinations ended and the new academic quarter began that participant development could officially be initiated. Some scattered assignments were made as early as 18 February, but it wasn't until on March 8 that name assignments were given to all members and a plea made to them to complete the calling as quickly as possible.

Name assignments for this first wave of phone calls were taken from a list of those survey respondents who answered "very interested" to the question: "If you were occasionally asked to do a program for cable television, would you be very interested, somewhat interested, or not interested?" Instructions were given to each caller to identify themselves, describe Cablexpo, and explain how the respondent was selected for the survey.

For respondents in non-academic groups or organizations, the purpose of the calls were to be exploratory--to brainstorm a bit as to how they could avail themselves of the Cablexpo opportunity if they so desired. If respondents were interested in knowing more, they were told that their names would be added to a mailing list to receive newsletters and proposal forms. For faculty and administrator respondents, emphasis was placed on the possiblity of using existing software, or experimenting with the channel such as for live television teaching.

A good deal of time was spent informing these student staff callers about the limitations of the Cablexpo event, especially on the point that only advice could be offered to the participant, and not actual production assistance except in rare cases. Callers were also coached on telephone style and given psychological support to counter the reticence they might experience when speaking with an administrator or faculty member.

By 25 March 1981, approximately half of the almost two hundred respondents who answered "very interested" in the survey sample were contacted either by phone or by personal meeting in this first exploratory wave of participant development. During this time, several media events occurred: (1) one cable article (not about Cablexpo) appeared in the 12 March Daily (Appendix C); (2) a mention was placed in the Staff/Faculty newsletters of March 13 and 20 (Appendix C); (3) the first Cablexpo newsletter was sent out on March 19 (Appendix B); and, (4) direct mailouts of the Presentation Proposal Form were made beginning March 20 (Appendix B). Two separate cover letters, one for students (Appendix B) and one for all others (Appendix B) accompanied the Presentation Proposal Form.

The Presentation Proposal Form was designed to give Cablexpo the information it needed to discern whether or not the individual or group considering to do original production was sufficiently prepared to do so and to solicit previously-produced programming from those not considering original production. The form was sent to: (1) those who had responded positively to the first wave of phone-calling, (2) individuals who were being kept in touch with Cablexpo's progress for political and protocol purposes, and (3) to those who requested it. The form was in demand up until the deadline date.

The author and those staff members who were making the bulk of the phone calls were in continual communication with each other (and met twice as a group on March 12 and 24) in order to monitor progress and share information. The president urged the staff to pay special attention to those groups on their list which happened to be receiving funding from the GSB. This special attention would later help the author in his fund-raising efforts with the GSB.

The callers were also asked to follow-up call those individuals who seemed most enthusiastic, and remind those who planned to do their own videotaping of the training seminars offered every other week by Media Resources. These seminars were also mentioned in the March 20 mailing.

Special attention was paid to those individuals and University services whose areas of endeavor seemed to be obvious candidates for participation in an event such as this. That is, personal contact was made with those having a prior history of media production or utilization, and administrators of those areas which traditionally, or in recent practice at other educational institutions, have found beneficial relationships with cable technology. One of these areas was microcomputers.

A meeting was held on March 16 for faculty, students, and local businessmen who either owned, taught with or about, or sold microcomputers. A representative from the Iowa State Daily was also in attendance. Talk centered on technical issues, and although ideas for programming were also discussed, no firm commitments were made, probably due to the stated lack of time on the part of most of those in attendance. The businessmen, as would be seen later, had the greatest motivation to participate.

In other developmental areas, the director of production and development at Media Resources had already offered his organization's large library of informational and instructional materials--promising to place on videotape as many University-produced films as Cablexpo might care to cablecast. Similar productive meetings were held with the Student Employment and Financial Aid Office (March 17), a class in news production in the JLMC department (March 18), the Iowa State Center (March 19), the Office of Student Life (March 19), the Library (March 23), and the Athletic Council

(March 25). Staff shortages prevented similar meetings with the Information Service and University/Cooperative Extensions, although they had been previously contacted by phone.

About the first of April a second wave of phone calling was begun in order to encourage the timely return of the proposal forms along with payment of the program guide fee. One week later, at the April 7 staff meeting, only two proposals were in hand, and so the author asked the staff to increase the pace of their follow-up calling. By the April 12 staff meeting, thirteen individuals had submitted a total of twenty-seven proposals, and several more were "on the way" according to the participant development staff.

An article appeared on page thirteen of the April 14 Daily (see "Cablexpo is taking applications," Appendix C) which seemed to speed up the delivery of the forms. By the end of that day, twenty-two more proposals had been received. Between the April 15 staff meeting and April 22 when pasteup of the program schedule was completed and submissions were closed, forty-seven more program proposal forms had arrived. So in the end, a total of ninety-six applications had been received and the participant development process was complete.

Publicity (2/6/81 to 5/8/81)

Cablexpo publicity generally served two functions: to assist in project operations, and to educate and inform the general audience about cable and Cablexpo. Often, because the project was compressed into a five-month period and because it did not have the funds to make separate publicity efforts, a particular piece of publicity served both purposes. Generally, however, the earlier the occurrence of the publicity, the more likely it was that it was for planning and operations, and the later, the more for education and information.

Press relationship One of the first tasks for the promotion of Cablexpo was to develop a public image. The first step taken was to encourage the University student newspaper, the ISU Daily, to participate in Cablexpo. On 6 February 1981, suggestions were made to both the outgoing and incoming student editors of the newspaper about the kind and form of participation that the Daily might consider--from taking full responsibility for programming an entire channel, to occasionally submitting stories to Cablexpo throughout the cablecast. It was assumed from the beginning, however, that to whatever degree the Daily would participate, it would not involve live studio time, but only alpha-numeric display generated by a microcomputer.

The editors were interested in the idea (especially because one of them had visited the Prestel system in the United Kingdom), but they chose to defer their final decision until they could make more inquiries into how much time and energy their budget and deadlines could afford. Their reply came a few days later in the 13 February issue of the newspaper which featured a page one story entitled "Cablexpo to bring ISU, Veishea to television," (Appendix C). There was also an editorial, "Learning by Doing," (Appendix C) which accurately and succinctly expressed the spirit and purpose of Cablexpo. In it, the editors told of their commitment to the project and described the opportunity that cable technology could bring not only to the _Daily_, but also to the University through the participation of its individuals and groups.

Logotype Another matter of importance was to develop a logo which would evoke the Cablexpo project at a glance. A professor in the College of Design permitted the author to present the Cablexpo concept to his advanced commercial design class on 22 January. Within three weeks, the best five of fifteen sketches were chosen, and by the end of the fourth week, the final design was decided upon. The logo was hence used on most printed publicity.

Newsletters Three issues of the Cablexpo newsletter were published (Appendix B). Each one varied in its content with the particular needs of Cablexpo at its time of issuance, and in its size with the amount of funding then available. Its editor (Cablexpo's publicity director) and the author used the newsletter to: (1) keep its readers informed of the project's progress, (2) explain the purposes and goals of Cablexpo, (3) list the requirements for participation, and (4) increase the awareness of cable technology in regards to access at a university.

The newsletter mailing list (which eventually numbered 330 names) was assembled from six groups of people:

1. Students and faculty with staff, or other close advisory relationship with Cablexpo
2. Presidents of student organizations and faculty members who responded in a positive manner to the first wave of calls made by Cablexpo's participant developers
3. All directors of University services who responded "very interested" in the pretest survey regarding participation
4. All those in the supplementary known users subpopulation of the survey
5. All upper-level University administrators and other key opinion leaders not included in any of the above categories
6. Those who requested to receive it.

The first newsletter was mailed out on 19 March 1981. It was designed primarily to answer major questions raised about Cablexpo and to encourage participation.[5]

The second newsletter, issued on 1 April, was very brief (two pages, one sheet of paper) because at that time it was not yet known how much funding would be forthcoming, and consequently, money was tight. Chiefly, the issue was intended to demonstrate that Cablexpo was still alive as a project even though its first request for funding from the GSB was denied.

The April 17 edition was six pages long and took three days to prepare. By that date, funding had been received from the GSB, and Cablexpo used the edition to generate interest and offer some examples of cable technology applications at other educational institutions in the State of Iowa.

The Iowa Cable Network On 21 April 1981, the local manager of Heritage Cablevision suggested that the advertising director of Heritage's new state-wide cable network be contacted and told of some of the Cablexpo programming. He said that there was a good chance that some of it would be picked up by the network. On May 1, when the schedule had been made firm, the author met with the directors of programming and advertising for Heritage in their Des Moines office. They consented to carry a total of eight hours of Cablexpo programming on Heritage's Iowa Cable Network.[6] These eight hours were spread over a four-day period.

The Heritage Cablevision program guide carried a small box announcing "Cabl xpo" [sic] in its May 1981 issue (Appendix C). Because this was submitted several weeks before the Cablexpo program schedule was firm and the cable network agreement was made with Heritage, no mention was made of specific programs or the fact that some of the cablecast would be carried over the Heritage network.

T-shirts It was announced in the second newsletter, April 1, that Cablexpo T-shirts were on sale. They were white with blue sleeve and collar trim, and the Cablexpo logo was reproduced small in solid blue on the left breast and oversize in horizontally-blended rainbow colors on the back. About the same time, reservations were made for a booth in the Memorial Union on May 1 at which the T-shirts were sold, literature was distributed, and videotapes were collected from the cablecast producers.

Publicity for the cablecast By way of the ISU Information Service, an article appeared in the Ames Tribune of 22 April in the "On The Campus" section (Appendix C). That same edition also included a shortened version of the first four days of Cablexpo's schedule in its TV Program Guide section along with an explanatory article entitled "CABLEXPO makes debut Tuesday on Cable Television" (Appendix C). The last two days of programs were listed in the following week's edition (see Appendix C).

On 6 May 1981, the first day of the Cablexpo cablecast, there was a box on page six of the ISU Daily which told of the cablecast's premiere, "Live from ISU on Cable" (Appendix C). The entire centerfold of that same issue was dedicated to the Cablexpo program guide (Appendix C). The layout master of the program guide was retrieved from the Daily shortly thereafter and delivered to a printer who made about 1,500 reduced copies. These were distributed to several stores and supermarkets throughout the Ames area.

In the special VEISHEA edition of the *Daily*, dated 7-8 May, two articles related to Cablexpo appeared. One was the editorial "Extra, Extra" (Appendix C) which told of the coming phenomenon of electronic newspapers and, related to it, the electronic news which was being supplied by the newspaper to Cablexpo Channel B that week. The other article, perhaps the most accurate and best written of all the articles about Cablexpo up to that time, appeared on page eleven. The major thrust of the article was the history and goals of Cablexpo (Appendix C).

Also in that issue of the *Daily* was a display advertisement, paid for by the GSB Committee on Lectures, promoting the five-hour Sunday seminar which was to deal with institutional and public cable television access (Appendix C). This seminar, held on May 10, the last day of the cablecast, was primarily an effort at education and information.[7] The first two hours was a program produced by the National Federation of Local Cable Programmers dealing with the use of access channels in general ("Access '80," 1980). The next hour-and-a-half was a rebroadcast of a U. S. Department of Education-sponsored teleconference discussing the uses of cable television at higher education institutions ("Cable TV and Higher Education," 1981).

The last hour-and-a-half of the seminar was a live conference, produced by Cablexpo, which placed two noted authorities on educational access cable programming before an audience of eight invited guests[8] ("Telecommunication in Higher Education," 1981). During the program a sampler videotape was shown and questions were answered by the panelists.

Cablecast preparations (1/30/81 to 5/6/81)

The preparations for the cablecast were primarily logistical in nature: campus cable wiring, equipment acquisition, program scheduling, videotape management, studio and console considerations, production assistance for volunteer producers, and alpha-numeric display. Because much of the information accumulated in these areas is more closely related to the findings of the study, only a brief resumè will be given here for most of them.

Campus cable wiring The re-activation of the existing campus coaxial cable system was considered the only practical way to make the Cablexpo cablecast available to students on campus. Although it was not a purpose of the project to initiate the wiring of the campus, it seemed important for fundraising and staff/participant morale that the attempt be made.

At a meeting early in March 1981 between the author, Cablexpo's liaison to Heritage, and the chief and assistant chief engineers of WOI-TV, the coverage and serviceability of the campus cable circuitry was discussed. The author explained Cablexpo's plans to use the system during the cablecast, and the WOI engineers said they would cooperate and begin by conducting continuity checks on the system. Cablexpo's liaison to the cable company promised that he would provide all necessary cable, convertors and connecting hardware, and that he and the cable company engineer would assist WOI in the continuity check. Although the WOI engineers described the system to be in poor condition, everyone was willing at least to pursue the possibility of getting the necessary portions of it operating.

Two weeks later, 13 March 1981, nothing had been done and so it was urged that all parties make arrangements to acquire the one piece of testing equipment which seemed to be holding up progress. Soon thereafter, engineers from WOI and the cable company began testing.

The overall plan was to transmit the signal from the TCA studio upstream on one frequency via the feeder cable installed there to the cable company head-end where it would be re-modulated to its designated system channel frequency. The signal would then go out over the community cable system, including, of course, the TCA origination point. There, it would be shunted into the campus CCTV system via a line from TCA to its headend at the WOI studios. The Cablexpo channels (as well as all other cable company channels) could then be viewed at pre-established viewing sites around campus, each equipped with two receivers tuned to one of Cablexpo's two channels.

The initial obstacles seen to this plan were: (1) providing continuity between TCA and WOI (the line had been cut several years prior during some street repairs), and (2) providing good signal at those locations selected as viewing sites (the termini at the high-traffic locations chosen had not been used or seen for years). By 2 April, a month after the first meeting, the only progress that had been made was a successful continuity check between a building near the TCA studio and the Memorial Union. A talk with the assistant chief engineer of WOI that day indicated apparent confusion as to what Cablexpo wanted, and so a letter was sent out the next day to fifteen key individuals outlining, in detailed priority, our expectations for the system and a suggested timeline for its completion (Appendix B).

The engineers met only two or three times that month, and it was not discovered until the week of 27 April that the signals being sent downstream from WOI were being attenuated at an unacceptable rate. It was only at this time, at an emergency meeting between the WOI and cable company engineers, that all parties learned that the high frequency "super bands" which modern cable technology uses are attenuated drastically in older systems. Further, it was discovered that modern cable signals are transmitted at an amplified line voltage which is not compatible with the campus system's externally-powered amplifiers. Because (1) the first channel allocated to ISU by the cable company was the highest frequency on the cable dial, Channel R, and (2) there were no in-line amplifiers available to install, the entire idea had to be scrubbed.

With less than a week left until the cablecast, the cable company local manager offered two alternate solutions, neither of which was feasible. One was to string cable across the major thoroughfare between the rooftop of an off-campus church and the Memorial Union. This was impossible due to accessibility problems near the church. The other suggestion was to set up an outdoor viewing location near TCA. This would have required expensive all-weather protection and full-time security, both of which were unavailable.

The best that could be accomplished was to outfit the TCA building with two viewing rooms where the two channels could be seen. This outcome was a disappointment and embarrassment to many; however, much was learned by all which will assist future planning and development.

Equipment acquisition   From discussions as early as 30 January 1981 with the acting chairman of TCA, and 16

February with our liaison to Heritage, it was generally known how much and under what conditions time, space and equipment would be offered to Cablexpo for use during the cablecast by TCA and Heritage Cablevision. Although Cablexpo did not know precisely what would be required of these three elements early in the planning stage, it found reasonable the following conditions set forth by TCA and Heritage:

> 1. TCA studio space and equipment could not be used during class meeting times; however, because the VEISHEA celebration would cause some classes to be cancelled, there would be a higher-than-normal vacancy rate during the cablecasting period.
>
> 2. Any demands on TCA staff time, especially of its chief engineer, would have to be reasonable, and reimbursed if funds were available.
>
> 3. For security reasons and for the protection of equipment, a TCA-authorized person must be present while the studio is open, and proper crowd control must be provided if and when large numbers of talent or audience are used.
>
> 4. Heritage would loan all of its production equipment to Cablexpo, and it would set it up, maintain it and operate it under the supervision of our liaison. The equipment could only be used in live studio configuration and would not be available for location videotape production.

Equipment was acquired from a total of nine sources on and off campus. (The equipment used, and the sources for that equipment, are itemized and discussed further in Chapter IV, FINDINGS, below.) TCA was particularly lacking in color equipment--owning only one Sony portable camera and recorder, and so their contribution was primarily the otherwise fully-equipped studio, and assorted U-Matic players, monitors, microphones and cables.

Heritage's equipment played a key role in the cablecast, and this was supplemented with various items from the College of Education's Instructional Resources Center, the Bio-Medical Communications section of the College of Veterinary Medicine and the Media Resources Center. Equipment was also obtained from two local microcomputer stores and the Ames High School. Two telephone lines were installed in the studio with two instruments which allowed for call-ins during live programming and assisted the operations of the cablecast generally. Most of the equipment acquisition took place about two weeks before, and two days into, the cablecast.

Console set-up Several weeks before the cablecast it was decided to place the director's console and all related cablecast equipment directly on the studio floor rather than behind the glass of the TCA control booth. The reasons for this were:

> 1. Cablexpo was intending to demonstrate the principle of university access cable television. What better way for this principle to be manifest than to place equipment where almost anyone could see and touch it?

2. Many of the participants were predicted to be first-time users, and the formality of putting the director's console behind glass would have tended to intimidate--thereby neutralizing Cablexpo's demystification efforts. It was felt that the more friendly and efficient communication encouraged between and among staff and participants with the director's console on the studio floor would far outweigh any reduction in studio noise level achieved by isolating it behind glass.

3. Almost all the equipment used by Cablexpo was acquired from sources outside the TCA area; therefore, placing all the equipment in TCA's normally locked control/equipment room would have made Cablexpo's operation more difficult and time-consuming.

Volunteers began to set up the console on 3 May 1981, three days before the cablecast began. They used two long, and very sturdy, tables that stretched across and in front of the control booth window, facing the area normally used for student productions (Figure 4). The table was arranged with the switcher/special effects generator in the center and flanked on the left with two 3/4" cassette VTRs and tape preview monitor, audio cassette player and audio mixer. To its right was the TBC, a waveform monitor, two RF-modulators, and the Apple III and Atari 800 microcomputers. In the temporary Cablexpo office was another U-Matic VTR, a VHS VTR, assorted TV receivers and several convertors. The VTRs were used to record off the air for the live program producers when they requested it, and for live program repeats. The VHS VTR was rolled into the studio whenever it was

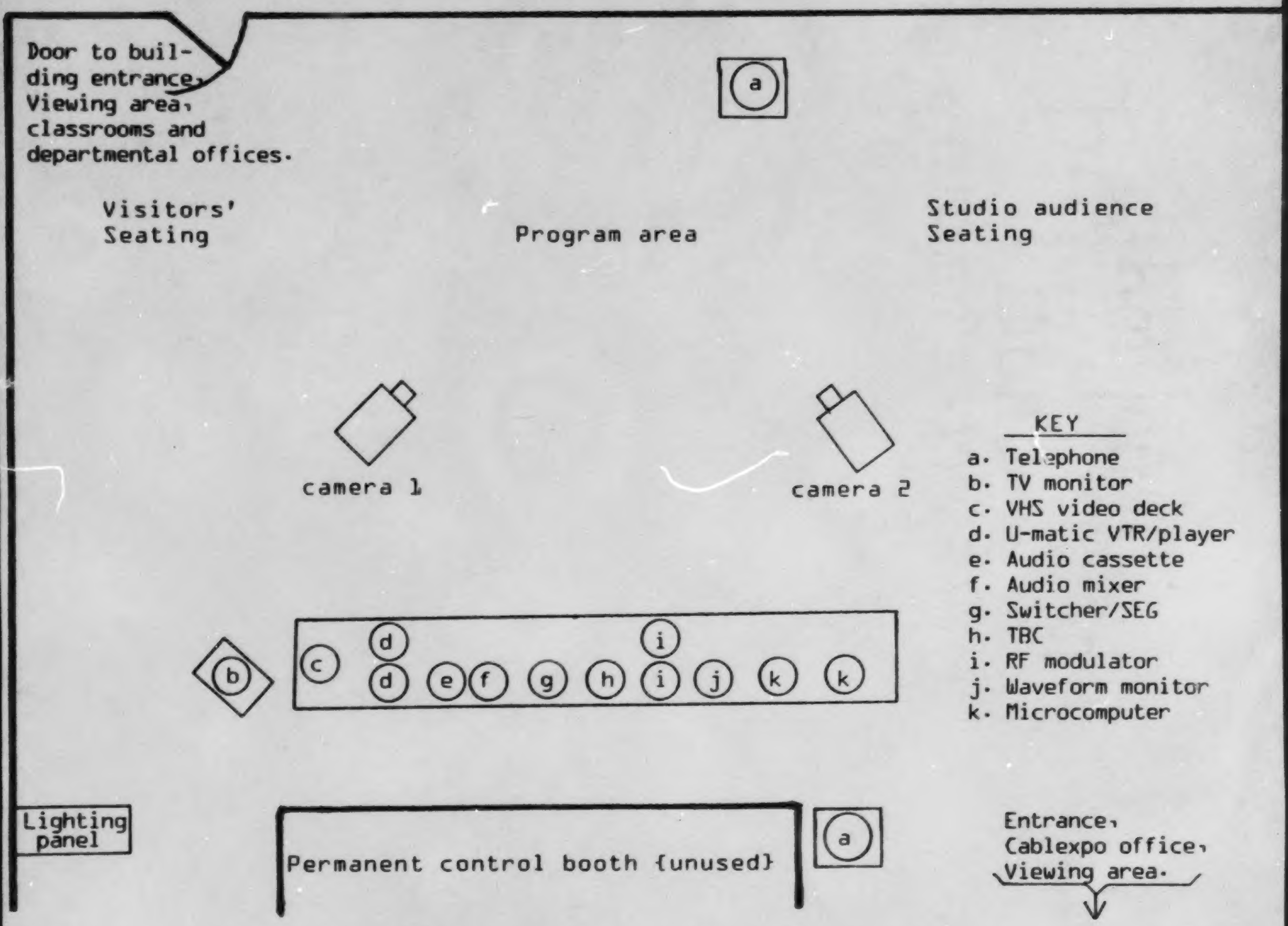
Door to building entrance, Viewing area, classrooms and departmental offices.
a
Visitors' Seating
Program area
Studio audience Seating
camera 1
camera 2
KEY
a. Telephone
b. TV monitor
c. VHS video deck
d. U-matic VTR/player
e. Audio cassette
f. Audio mixer
g. Switcher/SEG
h. TBC
i. RF modulator
j. Waveform monitor
k. Microcomputer
b
c
d
d
e
f
g
h
i
i
j
k
k
Lighting panel
Permanent control booth {unused}
a
Entrance, Cablexpo office, Viewing area.

Figure 4. Cablexpo studio configuration

necessary to play a VHS-recorded program.

Program scheduling As the program proposals were received, they were given an acquisition number and entered in a log book along with important information about the tape and the program recorded thereon. By 20 April 1981, most of the proposals had been received, and so on 22 April the program scheduler designed a program schedule board comprised of moveable cards on a grid. The days of the cablecast were listed down the left, and the times, in half-hour increments, along the top. The horizontal dimension of the card, therefore, indicated the length of the program, and using two colors for the cards enabled one, at a glance, to see if it was live or on videotape.

The acquisition number was placed on its program scheduling board card, as well as the program's title and a code indicating whether it was to be repeated. If a re-play had been requested by the producer, another card (identical to the original except for a code to distinguish it as a repeat showing) was placed on the appropriate time slot.

The program scheduler determined the time when any particular program could, or would, be played using three criteria:

1. The periods of time when live programming could not occur in the TCA studio

2. The time requested by the sponsor or producer of the program

3. The amenability of the program's sponsor or producer to a change in their requested time.

On April 23, three staff members, using the then completed program scheduling board as a guide, spent seven hours typing, cutting and pasting up of the first draft of the program guide to turn over to the ISU Daily's typesetter the next day.

Videotape management In order to safely and efficiently receive, process, cablecast, and return volunteer producers' videotaped programs, a system had to be devised. The booth in the Memorial Union which had been originally reserved for publicity purposes was used on May 1 to receive videotapes from producers. On April 28, letters were distributed to all producers (Appendix B) and phone calls were made to some, asking that they deliver their tapes to the Union between 10 AM and 5 PM if possible. Almost thirty tapes were collected in this way.

All participants were requested to put their name, telephone number, title of the program, and other notes on both the videocassette and its case.[9] Just prior to the cablecast (when most of the tapes had been delivered), a number was affixed to the videotape's case and written onto a master program schedule. The schedule was taped on the wall next to the console and the console operator used this to find the proper tape quickly during the cablecast. At every opportunity, the producers were notified that they could pick up their videotapes at the studio after their program had been cablecast, or at the Cablexpo office after May 10. Only seven tapes were not claimed and had to be returned.

Console operation In order to provide continuity of signal, security to the TCA studio, and assistance to the director during live programs, console operators were assigned by means of a sign-up sheet which began circulating on April 21. All staff members and TCA Production Club members were asked to volunteer for three-hour shifts if possible.

The program continuity duties of the console operator began by matching the number next to the program listing on the master program schedule to the videotape bearing the same number. The tape was cued up, and at the starting time, the tape was rolled and the switch was made from the electronic billboard to the rolling tape. While the program played, the microcomputer information was changed and readied for switching to when the program ended. Cueing up of the next program completed the cycle.

Because the console could accommodate only one video source in addition to the microcomputer, the program had to be previewed on one machine and played back through another. This created some inconvenience during switchovers and during some live programs.

Before the last program in the evening ended, the console operator set the microcomputer on automatic roll-through of its files of information. This ran all night until the first program of the next day began. The author arranged for making sure that the studio was secure at the end of the cablecast day, and that the studio doors were open at the beginning of the next.

Production assistance to producers For reasons mentioned earlier, limited time and energy was expended by the Cablexpo staff on hands-on production of the volunteer's programs, both live and taped. One reason for this, however, developed out of necessity rather than from a working guideline. As program proposals came in, it became obvious that many more original productions were being proposed than to which it was possible to supply experienced assistance. As envisioned, though, Cablexpo staff members were assigned to the individual or group producing a program as necessary, and, as it turned out, only eight of the many original videotaped productions required advice or assistance.

But while only these few taped productions required help, all of the live in-studio programs were given assistance (though to varying degrees) by the Cablexpo staff crew. Because there was not enough time or expertise among the Cablexpo staff and the TCA Production Club to accommodate everyone, some participants with little media experience were not, in our opinion, given a proper amount of attention for planning, production, or both (see Chapter IV, FINDINGS, below).

To familiarize the live show producers with the studio and production procedures, Cablexpo called them to a meeting at the TCA studio on 28 April 1981 with the Cablexpo production advisors and cablecast production crew in attendance. Here the producers were reminded that although a studio crew would be supplied by Cablexpo, they were to bring at least one person, not necessarily experienced in technical matters, to assist the Cablexpo director. In addition, they were asked to bring more people if the set-up or break-down needs of their particular program required it. They were asked to arrive at least 30 minutes before their scheduled starting time and to bring as detailed an outline of the show as possible to give to the studio director assigned to their program.

Alpha-numeric display   Two microcomputers and ancillary equipment were loaned free of charge to Cablexpo by two computer stores in Ames. The programming to enable them to act as character generators was also done gratis by those firms. For no particular reason, the Apple system was selected to show the twenty-four hour a day review of news and campus events on Channel B and the Atari system to billboard the short announcements between live and taped programs on Channel R. Examples of both microcomputers' electronic billboarding can be seen on the videotape accompanying this thesis.

A special program was designed for the Apple system which modified the high resolution text software in the graphics mode both to allow scrolling at a pre-set rate of speed, and to discriminate the spacing between words and sentences in order to retain word integrity from line to line. The five members of the _ISU Daily_ reporting team and one Cablexpo staff member could file series of stories up to a total of 125 thousand characters per diskette.

The Apple screen was divided into two discrete parts: the upper which held constant throughout two runs with either the headline "CABLEXPO CALENDAR" or "ISU DAILY," and an invisible window below in which scrolled upward the respective announcements or news items. Each information item could be assigned one of three colors which appeared brilliant against the video-black background. The headlines were video-white.

To create the files, an Apple II was placed in the _Daily_ news office for the exclusive use of the contributing reporters, and another was kept in an office adjoining the Cablexpo studios so that a staff member could update the daily calendar of campus and VEISHEA events. Either the console operator or Cablexpo's microcomputer coordinator would change the diskettes, alternating between calendar programming and the news delivered from the Daily's newsroom.

To transmit, an Apple III was connected directly to the Channel B's RF-modulator via a DB9 to BNC connector patch and it produced an acceptable, although not perfect, cable-compatible signal. With the addition of a supplementary disk drive to the Apple III (which has an on-board disk drive), it was possible to shift back and forth between disks to allow for the introduction of new material without a break in the programming.

An Atari 800 was used on Channel R between live and videotaped programs during the day, and continuously through the night with miscellaneous announcements. It used its resident graphic capability, programmed with seven Cablexpo headline backgrounds. Each headline represented a separate file capable of a 250-character message. The message would crawl along a narrow band just below center-screen and its speed was varied by means of a game paddle. Background headlines included "CABLEXPO '81," "WEATHER," "Special Announcements," etc. A special auto-rotate command displayed all seven files in an endless loop for overnight transmissions.

The "CABLEXPO '81" headline's message crawl (used between programs) was written by the console operator while a program was being transmitted, and then switched to on the master control panel (just as any video input would be) when the program ended. The Atari 800 has an acceptable NTSC video out which is fully cable-compatible.

Evaluation of Cablexpo

The survey

Subpopulations The purpose of this study dictated that only those groups which might have the highest likelihood of actively utilizing the cable medium for their instructional or informational needs be looked at. For the instructional area, all ISU faculty and those administrators with academic rank were chosen as one subpopulation. For the informational area, two subpopulations were studied. One was the student presidents of campus organizations, and the other was the salaried directors of University services.

In January 1981 (at the time that the sample was drawn from these three subpopulations), Iowa State University had about 24,500 students, 1800 full-time faculty and administrators with academic rank, 1200 professional and scientific employees, and 2600 clerical and manual labor staff. Although all of these individuals were potential cable television *viewers*, this study was only interested in those groups which would be most likely to *utilize* the access channels to transmit information or instruction to others. Therefore, from the total of 24,500 ISU students were selected the presidents of the 350 student organizations on campus. Almost all student organizations utilize some form of media to reach members of their own organization or the University as a whole, and it was felt that the leaders of these groups would provide the best access to these groups.

The 1200 professional and scientific employees and the 2600 people working in clerical and manual labor positions were considered not likely to utilize a campus access channel, at least during the early formative stages. But it was felt that because the approximate 200 directors and administrators of University services from the professional and scientific and faculty groups already often utilize media to disseminate information to their own organization or to the University at large, they would have a higher likelihood of utilizing cable television. Therefore, they were chosen as the second subpopulation.

Those in these first two subpopulations, 350 presidents of student organizations (students) and two hundred directors of University services (University services), are primarily interested in information dissemination rather than formal instruction. Thus, they were labelled as *non-academic* subpopulations. These were treated separately from the third subpopulation, the *academic*.

The academic subpopulation (Faculty) was taken to be the 1111 individuals of the total 1800 academic-rank University employees who were teaching in classrooms at the time that the survey was conducted. This type of individual is primarily concerned with formal instruction and is most likely to utilize an access cable channel for academic purposes rather than information dissemination as would the two non-academic subpopulations.

Selection of the sample For the student subpopulation, an alphabetical list of 350 names was obtained from the Office of Student Life. Directors of University services were selected by a careful scrutiny of the approximately two hundred alphabetical-by-office title listings in the front of the University telephone directory. If a reading of the title clearly indicated an academic function, the associated administrator was not included. If it was not clear as to the individual's function from a first reading of the title, a phone call was made to discern the appropriateness of his or her inclusion in the sample. In this manner, a sample of 102 was chosen from the subpopulation of two hundred.

The academic subpopulation (faculty) which was comprised of those 1111 of academic rank and then teaching full-time was too large to include in toto. Therefore, a random sample of 250 was taken. A computer-generated mailing list was supplied by the Office of the Vice President for Academic Affairs, arranged in a triple-alphabetical manner; that is, all campus office buildings were arranged by building name, then within each building, by department, and then within each department, by last name. Each name was assigned a number and a skip interval was derived by dividing the total number in the subpopulation by the desired N (250). A starting number was chosen blindly from a list of random numbers, and all subsequent names were selected using the skip interval.

Questionnaires The survey instruments were devised by the researcher based on prior surveys in the literature balanced with the needs of this study. The questions were checked for style of language, comprehensibility and logical flow by a professional telephone pollster (a member of the author's graduate committee). They have been reproduced in Appendix A. In addition, approval for use of the questionnaire was obtained on 2 February 1981 from the Human Subjects in Research Committee (Appendix F).

The pretest questions for the academic subpopulation included:

1. Degree of familiarity with video instructional media (two yes/no questions)
2. Whether or not a home cable subscriber (yes or no)
3. Gender, age and years teaching

4. Interest in seeing the University use cable television (very, somewhat, not)
5. Interest in participating in cable programming (very, somewhat, not)
6. Opinion as to the future of cable development at ISU (scale from one-to-ten)
7. Opinion of television to augment teaching (scale from one-to-ten)

For the posttest, the four interest and opinion questions (numbers four through seven) were repeated, and a follow-up check on home cable subscription was made. In addition, this information was obtained:

1. Degree of attention paid to Cablexpo (determined with three yes/no questions and skips)
2. Opinion of the most important facilitating/inhibiting factors in cable program production (two open-ended questions).

Whereas the _academic_ questionnaire was concerned with the instructional applications of cable technology, the _non-academic_ pursued the informational. Data were collected in the following areas:

1. Gender and time in present position with their organization
2. Their organization's most-utilized media type, its frequency of use, and its utility to the organization (one frequency and two multiple-choice questions)
3. Previous experience with television (yes or no)

4. Interest in seeing the University use cable television (very, somewhat, not)
5. Interest in participating in cable programming (very, somewhat, not)
6. Opinion of cable's usefulness to their organization (little, some, quite a bit).

Parallel to the academic version, the non-academic questionnaire included the interest and opinion questions (numbers four through six) to determine:

1. The degree of attention paid to Cablexpo (three yes/no question, and one fill-in-the-blank, with skips)
2. Their opinion of the most important facilitating/inhibiting factors in cable program production (two open-ended questions)

Because of the much higher participation rate in the cablecast among the non-academic subpopulations than among the academic, it was decided to collect the following item of information from this group only:

3. Did your organization talk about participating and if it it did not, why not? (one yes/no question and one fill-in-the-blank)

Survey technique Telephoning was chosen as the most cost- and time-effective method to conduct the survey due to the brevity of the instruments and the limited time available to complete the study. The names of all those in the subpopulations were placed on separate survey sheets and the sheets were delivered to the telephone surveyors. For the pre-test, the calling was accomplished by one senior-citizen volunteer and two paid students. The callers were first oriented to their tasks, and then periodically contacted to address problems which may have come up. The callers were asked to make a minimum of three call-backs to each prospective respondent.

The same callers were used for the posttest, but supplemented with one additional paid student. Only those who had responded to the pretest were called for the posttest.

Other data collection

Because the study wished to discern what factors might be correlated with a respondent's decision to participate in Cablexpo, the following information was accumulated for the statistical analysis:

- The college to which the faculty respondent was affiliated (there were seven possibilities plus a miscellaneous category)
- The type of student organization of which the student was a representative (eight classifications)
- Whether the respondent received a telephone call from the Cablexpo participant development staff
- Whether the respondent received a Cablexpo newsletter
- Whether the respondent had a face-to-face meeting with a member of the Cablexpo staff.

Data and information not included in the statistical analysis but which proved useful in the execution of this paper were obtained from the following sources:

- A log of most of the telephone calls made by the researcher
- Minutes of meetings held among and between staff and participants
- Tape recordings of certain key meetings
- Clippings of all newspaper articles and dislay advertising
- Minutes of hearings of the Government of the Student Body
- Copies of correspondence
- Copies of Cablexpo fliers, newsletters and forms
- All information submitted by participants to the Cablexpo participant development committee
- Descriptive log of events during the six-day cablecast
- Notes from follow-up meetings with staff and participants after the cablecast.

Footnotes

1. The resident student body referendum held the previous year concerning cable in the dorms was administrated by this same individual.

2. The result of this challenge grant eventually totalled $125 divided among four contributors: Office of the Vice President for Academic Affairs, the Telecommunicative Arts area of the Speech Department, the Department of Journalism and Mass Communication, and the University Cooperative Extension.

3. In the case of series, each episode was treated as a first detailed mention, unless the producer requested that only its title be listed in which case the abbreviated listing charge applied.

4. As explained in detail in Findings, the original phrase Program Development was a misnomer. Although in contradiction with what this function was called during Cablexpo and used in its literature, the term Participant Development will be used henceforth for accuracy.

5. One of the myths Cablexpo wanted to dispel was that the use of ISU's access channels would imply an "endorsement" of Heritage Cablevision. The existence of this myth could not have been better confirmed (nor with greater irony) when upon receipt of the newsletter, a middle-level administrator called on Cablexpo's faculty advisor to question the propriety of the organization, which he said was promoting cable television, to use Campus Mail.

6. After a number of programs were described to the advertising director, he said "_________ [the local cable manager in Ames] told me this was the greatest thing to come down the pike since sliced bread, but so far you haven't shown me anything."

The reason for this kind of attitude seemed to the author unmotivated. While it was simply wished that the Cablexpo participants' programs would be given an opportunity to be seen by the greatest number of people as possible, this individual gave the strong impression that he did not wish to be bothered with access programming.

7. The videotapes of this programming have been acquisitioned by the ISU Library.

8. Invited were the Deans of the seven University Colleges, the members of the University Committee on Cable Television and Computer-Assisted Instruction, and the Vice Presidents of the University. The letter of invitation can be found in Appendix B.

9. The producers were told that they could pick up their tapes either at the Cablexpo studio after their programs were played, or at the author's office anytime after the cablecast. Out of the seventy-two tapes eventually handled, only seven that were not claimed after the cablecast had to be delivered by Cablexpo to the participant.

CHAPTER IV. FINDINGS

Overview

The findings from the study have been organized into two sections. The first section, limited to showcase and feasibility aspects, discusses the data and information accumulated during the execution of Cablexpo. Generally, it deals with logistics and operations of Cablexpo, and reports data resulting from the aspect of the project which sought to discern the potential interest in access cable channel utilization and the resources available to meet those needs.

The second section, in contrast, analyzes the effectiveness of Cablexpo in influencing the thoughts, statements and actions of members of the University as regards cable television.

As a Showcase and Feasibility Study

The survey

Execution The pretest was scheduled to be completed in seven working days, but it took ten. Phone calling began with four students (three paid and one volunteer) and one senior citizen (a volunteer), but most of the calling was accomplished by the two paid students and the senior volunteer. (One volunteer and one paid student did not make more than five calls each before they resigned.) They averaged twelve calls per hour.

For the posttest, only those responding to the pretest were called. Again, one senior citizen volunteer and two paid students accomplished the phone calling. Because the callers did not have as much time to spend phone calling, and because the respondents were harder to find at their phones at that time of the year, it took twelve working days to reach a suitable number of responses. At that point, the callers began to get too many no-answers and the survey was terminated. Because the posttest was brief, they were able to average fourteen responses each in spite of these limitations.

Response Table 5 shows that a total of 492 individuals responded to both the pre- and posttest survey questionnaires. University services and Faculty subpopulations had the best response rates (79.4% and 78.4%, respectively). Student presidents had a 61.4% response rate. There were 296 non-academic questionnaires completed and 196 academic.

Table 6 profiles the non-academic respondents by age, and months in their present position as director or president of their respective organizations.

Table 5. Sample size and response to the survey, by subpopulation

	Non-academic		Academic
	Students	Univ. svcs.	Faculty
Subpopulation size	350	200	1111
Sample size	350	102	250
Valid responses	215	81	196
Response rate (%)	61.4	79.4	78.4

Table 6. Profile of student organizations and University services

	Students n=215	University services n=81
Sex (male : female)	63.7% : 36.3%	70.4% : 29.6%
Months in position	10.2 +/- 6.5	79.8 +/- 75.8

Table 7 summarizes the organizational affiliations of students surveyed in a scheme of nine different interest types. Organizations established for honorary, academic or professional purposes head the list. Sports/recreation groups and social sororities/fraternities rank second. Although the sample was large (almost sixty-two percent of the total number of student organizations on campus), the

Table 7. Organizational affiliation of student president respondents

Type of organization	n (% of N) N = 215
Club, chapter, sorority, fraternity (honorary, academic, professional)	87 (40.5)
Sports or recreation	29 (13.5)
Sorority or fraternity (social)	26 (12.1)
Service	20 (9.3)
Special interest (ethnic or racial)	20 (9.3)
Religious	16 (7.4)
Political	8 (3.7)
Fine or Performing arts	5 (2.3)
Military	4 (1.9)

percentages in Table 7 have not been shown to be generalizable to the composition of student groups as a whole at the University.

Table 8 has classified the University services respondents in a scheme based primarily on function of the service rather than on its source of funding, or the University area under whose purview it falls administratively. (Where an organization provides services in more than one area, its primary function has been used to determine its placement.)

Table 8. Organizational affiliation of University services respondents

Type of University service	n (% of N) N = 81
Personal maintenance or enrichment	36 (44.4)
Administrative or Physical plant	15 (18.5)
Academic support	11 (13.6)
Tenant	10 (12.3)
Off-campus audience	9 (11.1)

The five types are:

> 1. Personal maintenance or enrichment. Those which provide services to maintain or enrich the mental and/or physical needs (outside of formal instruction) of those in the University community. Examples would be the Iowa State Center, Athletic Council, Office of Student Life, Student Health Services, departmental Placement Offices, etc.
>
> 2. Administrative or Physical plant. Those which provide day-to-day support to the University's operations such as Physical Plant, Photo Service, Printing Service, Space and Schedules, Campus Mail, Campus Auditor, Personnel, Admissions, etc.
>
> 3. Academic support. Those mandated to provide services directly to, or in support of formal instruction. The Library, Computation Center, Media Resources Center, and the various research institutes would be examples of this type.
>
> 4. Tenant. Those organizations whose presence is supported principally by outside funds, but whose influence and benefits are felt by the University. Oversight of these organizations is

delegated to some administrative office on campus. Examples of this category would be Ames Laboratories, the Alumni Development Fund, Military ROTC, Memorial Union, Bookstore, etc.

5. Off-campus audience. Those which render services to an audience which is primarily off-campus. These services can be formal instruction, entertainment, news and outreach, or information to home, farm or business. The Office of Continuing Education, WOI-TV/Radio, the Information Service and the eleven college, departmental and University extension services would be included here.

More directors of the Personal maintenance/enrichment type were interviewed than from any other single area. The Administrative and Physical plant type was a distant second with the other three trailing closely behind. Because of the non-random selective manner with which individuals were selected in this subpopulation, this distribution may be skewed toward those University services which have a higher rate of media utilization. Because comparative data are not available, it cannot be determined how closely these figures compare to the approximate 125 University services extant at ISU.

Of the sample of 250 selected from the faculty subpopulation, 196 provided valid responses to both pretest and posttest. While the samples of student and University services cannot be generalized to their respective subpopulations, the faculty sample shows a very close match to its subpopulation by college and gender. Table 9 compares the demographics obtained for the faculty from the study with that of the University as a whole.

Table 9. Comparison between survey sample and University demographic data

	University data[a]	Survey Sample
Age (mean)	(not available)	42
Sex (%, male:female)	81.3 : 18.7	83.8 : 16.2
Years teaching	(not available)	13.6
College of:	(percentage)	(percentage)
Agriculture	15.8	10.1
Design	5.2	7.0
Education	6.1	9.6
Engineering	14.1	17.7
Home Economics	6.4	10.0
Science & Humanities	38.6	38.6
Veterinary Medicine	5.8	7.0
Miscellaneous	8.0	8.5

[a] Calculated for the Affirmative Action Office from October 1980 payroll data.

Utilization of all media

The faculty was asked if they regularly assigned television viewing in their classes, if they had ever produced instruction for television, and how they felt about using television to augment teaching (Table 10). While almost forty percent said that they had at some time produced instructional material for television, only about a fourth said that they assigned ITV at least once a quarter to their students. Their feeling about using ITV to augment teaching was a relative non-committal 6.1 (+/- 2.4).

Table 10. Utilization of instructional television by faculty

Regularly assign television in classes (n=162)	40 (24.7%)
Have produced ITV material (n=171)	62 (36.3%)
Feeling about using television to augment teaching (scale 1-10)	6.1 +/- 2.4

The non-academic subpopulations (students and University services) generally have different reasons than the faculty for utilizing media--for information rather than instruction. However, the thirty-nine percent of University services' directors who have used television is comparable to the thirty-six percent rate of faculty who have produced material for instructional television (Table 11).

What type of media these non-academic groups principally use to reach their target audiences and how often they use them is summarized in Table 12. The most popular method

Table 11. Utilization of television by student groups and University services

	Students n=215	Univ. Svcs. n=81
Has used television at least once to reach its audience	29 (13.5%)	31 (39.2%)

Table 12. Principal kinds of media utilized by student organizations and University services, and their frequency

Kind of media	Frequency	Percentage of n
STUDENT ORGANIZATIONS (n=215)		
Fliers/posters	1 to 5/month	31.1
Own publication	1 to 5/month	27.0
ISU Daily	1 to 5/month	22.8
UNIVERSITY SERVICES (n=81)		
Own publication	1 to 5/month	43.3
Own publication	11 to 30/month	9.9
Off campus mass media	1/quarter	7.4
Off campus mass media	>50/month	7.4
ISU Daily	2 to 5/month	6.2

for student groups is via posters/fliers which they distribute five or fewer times each month. The second most popular is with their own publication five or fewer times per month, followed by the use of the ISU Daily one-to-five times per month. University services, by far, depend most on their own publications, published one-to-five times each month, to communicate with their audiences. Add the ten percent which issue their own publication eleven-to-thirty times each month, and fifty-three percent of all University services rely principally on their own publication. Off-campus mass media and the ISU Daily were the principal media used by the least number.

Reasons for student organizations and University services to utilize media are summarized in Table 13. The major uses by student groups were to publicize events and to disseminate general information. The major uses by University services were to disseminate general information and publicize their on-going client services.

Organizational structure and operations

As explained above, the original eight-committee structure of Cablexpo (Figure 2) proved unworkable and had to be simplified (Figure 3). With the revised structure, consisting of only three major divisions (publicity, administrative and production), help was recruited from the staff of one division as tasks in another occasionally became too great to handle alone. Discussion as to why the structure had to be modified and some hindsightful recommendations can be found in the next chapter.

Table 13. Purposes for which media are utilized by student organizations and University services

	Student orgs. N=465 (% N)		University svcs. N=184 (% N)	
(More than one response allowed per respondent)				
To publicize events	151	(71.2)	36	(46.2)
For general information	122	(57.5)	60	(76.9)
For recruitment	97	(45.8)	27	(34.6)
To publicize continuing services	57	(26.9)	52	(66.7)
For entertainment	38	(17.9)	9	(11.5)

Figure 5 shows the spans of time and intensity of activity involved in each of Cablexpo's areas of operations. The relative thickness of the horizontal shapes indicate more activity or less activity for a period of time. For example, the Cablecast is shown to have occurred only in May. On the other hand, Cablecast preparations took place from late January to early May, with particularly intense activity in late April.

It should be noted that the three most intensive periods of activity occurred with staffing, participant development and cablecast preparations. The bulk of activity occurred in the five-week period beginning the last week in March.

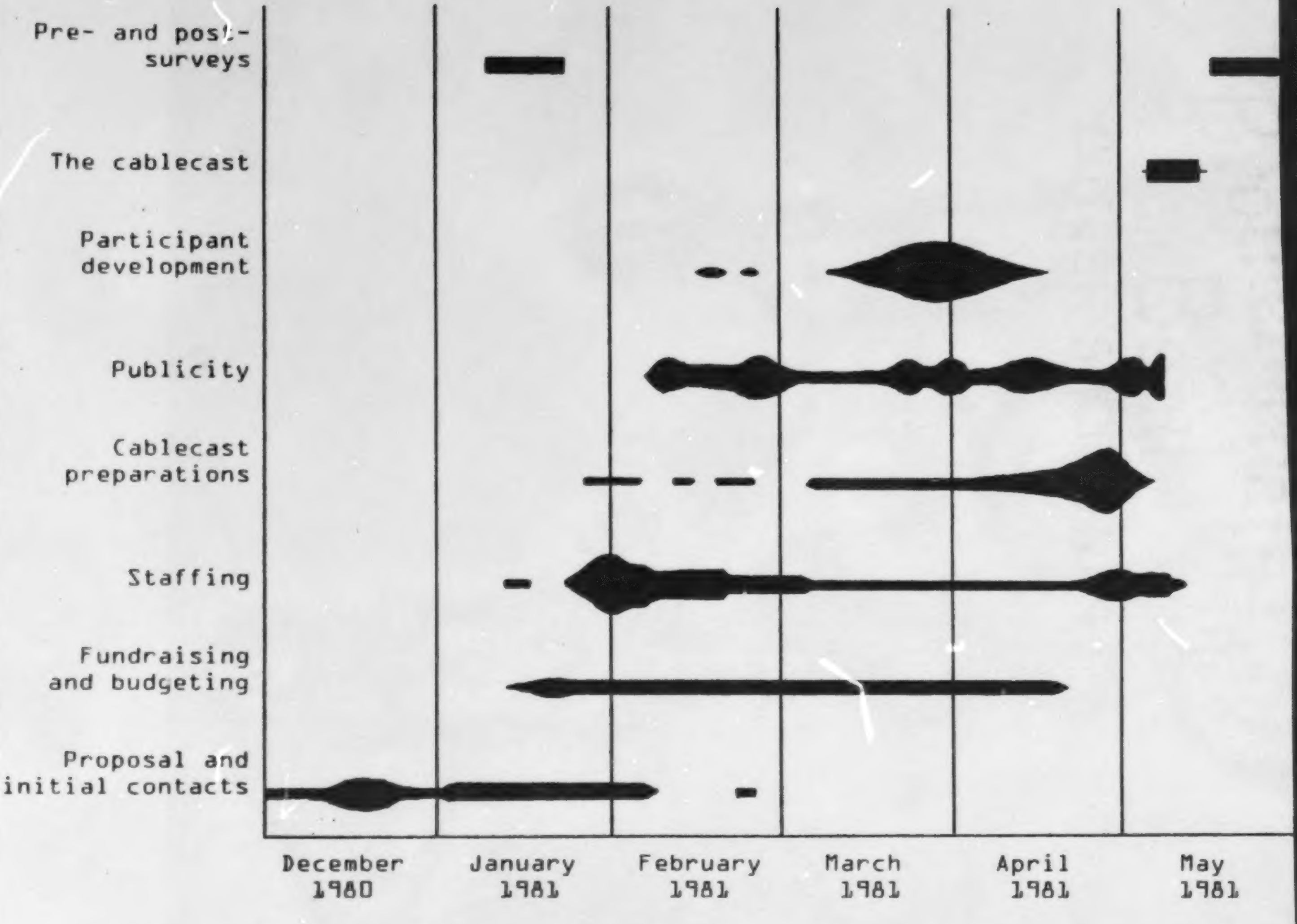

Figure 5. Relative intensity of various Cablexpo activities over time (see text)

Staff recruitment

Recruiting for staff took place during two periods. The first was conducted at the beginning of the demonstration project in order to find primarily administrative-type volunteers. The second period occurred just prior to the cablecast when studio crews and console operators were needed.

Results of the efforts to recruit volunteer staff for the administration of Cablexpo are summarized in Table 14. The project began with a pool of forty names. About half, or nineteen of these individuals, came from the TCA area of the Speech Department; one-third, or thirteen, from Journalism/Mass Communication; a tenth, or four, from CurriculumInstructional Media (Education); and another tenth from miscellaneous departments on campus.

The list of forty diminished to nineteen in about three weeks, and by the end of the period just prior to the cablecast this original list had decreased to seven. On the other hand, seven more individuals had joined the effort over that same ten-week period (February 14 to May 1) to bring the total central administrative staff number to fourteen (Table 15).

An adjunct group of thirteen individuals was recruited to assist the regular staff in the operation of the studio and equipment during the cablecast. The majority of these

Table 14. Results of Cablexpo's initial volunteer staff recruitment effort

Gathering	No. of individuals signing up
Class 1 -- JLMC 501	8
Class 2 -- Speech 233	7
Class 3 -- JLMC 354	0
Class 4 -- Speech 432	3
Class 5 -- Speech 504C	6
Class 6 -- JLMC 348	5
Class 7 -- Curr 502	2
Club 1 -- TCA Production	3
Club 2 -- American Marketing	0
Public Meeting -- 2/14/81	2
Word-of-mouth/miscellaneous	3
Total:	39

thirteen were students and staff from the TCA area and volunteers from WOI-TV. The two major functions of these volunteers were to act as supplementary console operators, and studio crew members.

There were twenty-four console operator shifts, each three hours in length, which were assigned via a sign-up sheet circulated about two weeks prior to the cablecast. About half the shifts were not volunteered for in advance.

Table 15. Ending staff composition of Cablexpo

Coordinator	1
Secretary	1
Treasurer	1
Publicity director	1
Participant developers	4
Cable company liaison/equipment procurement	1
Production manager	1
Electronic billboard coordinator	1
Administrative assistants	2
Faculty advisor	1
Total:	14

The vacancies in the first three days of the schedule (mostly during daytime hours) were reportedly due to examinations and other time commitments related to the upcoming weekend's spring VEISHEA celebration. The middle portion of the cablecast week was fairly well-staffed with volunteers; however, the last day of the cablecast, Sunday, was not. With active solicitation during the course of the cablecast, all but two shifts were filled.

An attempt was made to provide crew continuity during the several periods of live programming in order to facilitate operation. This was simple to accomplish in those periods during which there were programs for which more extensive planning had been done, and during the hours of "VEISHEA Open House" when the TCA Production Club played host to the public and more of their members were present in the studio. At some other times, only a minimum of crew was on hand. Generally, however, the typical crew consisted of:

One technical director
One audio person
One director's assistant
Two camera operators
One floor director

In some instances, these people also were needed:

One boom operator
One telephone call screener
One videotape machine operator

If others were on hand to help re-arrange sets, cue-up the microcomputer, go for supplies, etc., the crew numbered as many as twelve.

Budget and fundraising

The closing balance sheet for Cablexpo shows $2645 in income and expenses (Appendix E). The largest single expense, the public education seminar held during the cablecast, was directly reimbursed through a non-discretionary funds grant. Aside from this, the largest operating expense was the program guide which was published as a two-page centerfold display advertisement in the ISU Daily ($494).

This was paid for, for the most part, with the advertising fee charged to the volunteer producers. About eighty-five percent ($240) of the final cost was raised from these fees, and the rest was absorbed by the Cablexpo organization. Because the charges were made on a pro-rata basis according to the amount of space the producer used in the guide, the fifteen percent shortage was justifiable because Cablexpo itself published information for nine of its own programs plus introductory information to the event. The display ad price charged by the newspaper included typesetting and layout.

Because the method required to transfer funds from one account at the University to another is dependent on how the accounts are classified with the Treasurer, the process of billing and bill-collecting was sometimes inconvenient and time consuming. On the other hand, the system was fair and reasonable to the participants and invaluable to Cablexpo in general because it made possible a very effective publicity tool--the program guide.

Another large single expense was the telephone system installed especially for the cablecast in the TCA studio ($201). About $125 of this was for the one-time installation fee, and the remainder was for the minimum monthly rental of two lines and two telephone instruments.

The newsletter expense totalled $263. Sensing its value ahead of time (and confirmed by the data), as much was spent on each issue as possible without jeopardizing other essentials. As it was, each copy, on average, cost about thirty cents, or ninety cents per "subscription." Because printing was the principal expense, three techniques were used, chosen on the basis of how much money was available at the time. The least expensive was the paper master offset technique at the University Copy Center in the Memorial Union. Although it was the most inexpensive for that quantity of uncontracted work (about two cents per side including collation and stapling), the ink, paper and character resolution was noticeably inferior to photocopying--a slightly more expensive technique used for the first issue. Therefore, for the last issue, it was decided to take bids from local commercial printers and pay an even higher price. A comparison of the quality of issues two and three reveal that the action was justified (Appendix B).

Fundraising for Cablexpo was problematic at times because the event was unprecedented at the University. Not only were there unknowns regarding how much time and materials would be donated, but also there were contingencies which could not be predicted to any degree of certainty. Other problems arose because three facts regarding the project were continually misinterpreted by numerous individuals and funding agencies. These facts and how they were misinterpreted are discussed in the following section.

Inhibiting attitudes encountered

There were three facts which created situations which were dysfunctional to Cablexpo:

1. Cable television in Ames is a commercial business
2. Cablexpo was being used as the basis of academic research and credit for the researcher
3. There is no working system on campus or in the residence halls with which to view cable programs.

First, as pointed out in Chapter III, Cablexpo was wrongly interpreted as a project promoting cable television as a business rather than the concept of educational access to the medium. Second, the fact that the researcher was doing a study based on the Cablexpo project, which in turn was seen as a promotion of a commercial business, lent credibility to the position that funds cannot be given to academic research. Third, it was difficult to justify support for a project which was primarily developmental in nature and could not guarantee immediate results such as being able to see it everywhere on campus.

Participant development

A principal part of the Cablexpo demonstration project was effort spent in identifying and enlisting volunteer producers. This process has been rendered graphically in Figure 6. Beginning at the left of the graph, one can

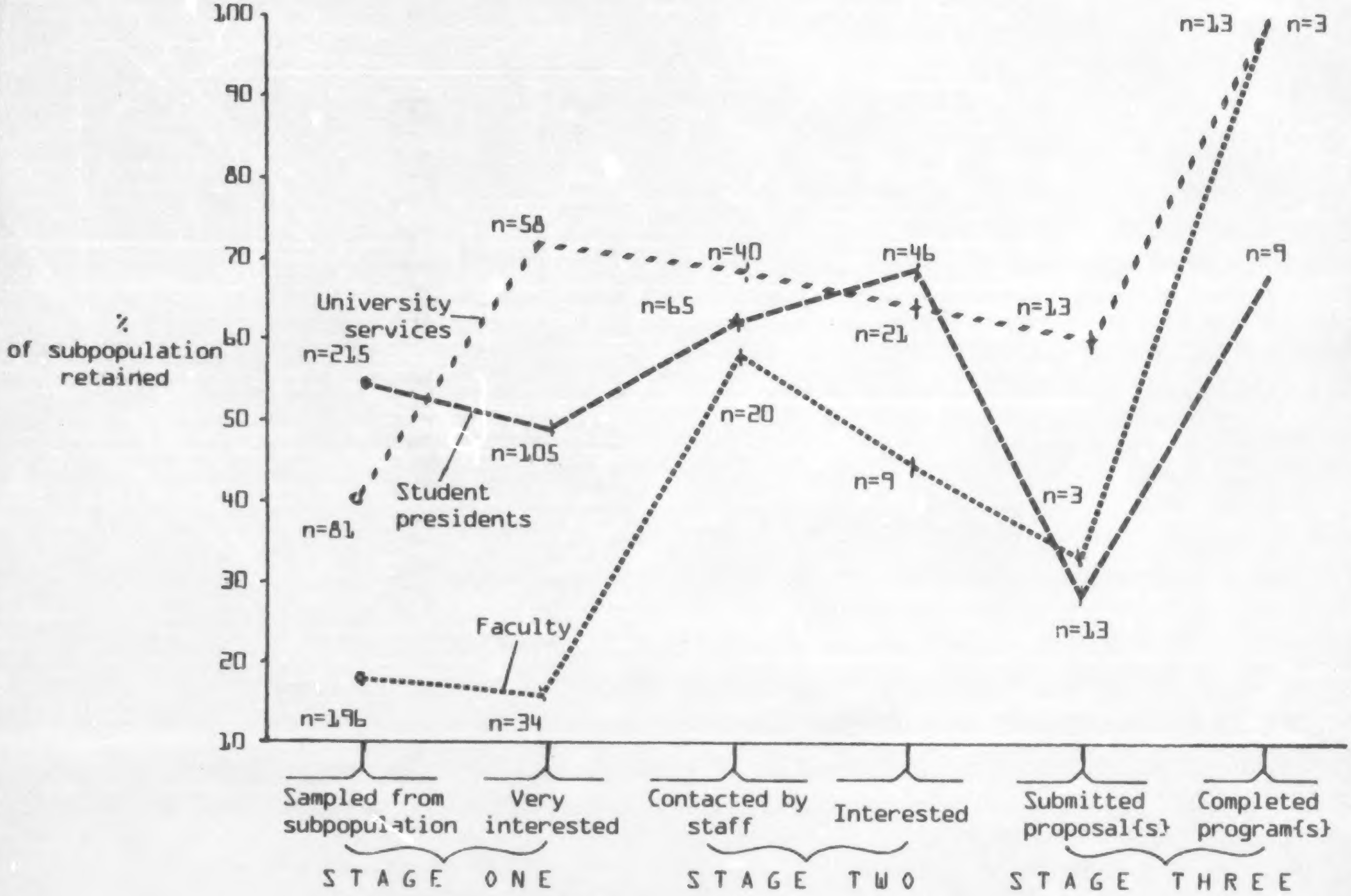

Figure 6. Retention of survey respondents through participant development process, by subpopulation

follow each of the subpopulations as a certain percentage fell by the wayside. It should be noted that of the 492 original survey respondents, twenty-five completed programs for the cablecast.

The participant development technique used by Cablexpo can be considered in three stages (noted along the horizontal axis in Figure 6):

> Stage 1. The subpopulations were sampled and surveyed. Whether or not the respondent was carried into Stage 2 was determined by whether or not the individual responded "very interested" to the question regarding possible participation in cable programming.
>
> Stage 2. The Cablexpo participant developers made telephone calls to or met with sixty percent or more of the respondents from each subpopulation, and newsletters were sent to those meeting the criteria as outlined above. If they were found, at the end of this Stage, to still indicate some interest in the project, the respondents were encouraged to submit proposals as producers of a program.
>
> Stage 3. If their proposals were submitted and their programs were actually completed on time, the respondents reached this advanced degree of participation.

Note that in Stage 1, while only seventeen percent of the faculty responded that they were "very interested," seventy-two percent of the University services and about fifty percent of the students polled answered similarly.

In Stage 2, when a portion of these same individuals were given more information about the project, again the faculty was the lowest with about forty-five percent professing interest. The percentages for students and University services reversed however, with the former exceeding seventy percent and the latter dropping to about sixty-four percent.

In these first two stages, a potential producer was only verbally stating interest and not providing any physical action. But in Stage 3, when an individual was asked to fill out a Presentation Proposal Form and then submit a program, a much greater commitment of time and energy was required. Here, one-hundred percent of the faculty, while again retaining the fewest percentage from the previous Stage (thirty-three), completed the process by following through with their program "promise." Likewise, the University services delivered all they "promised," but in addition, their retention rate from Stage 2 was by far the highest at sixty-two percent.

Students did most poorly at this Stage. Out of those who professed interest in Stage 2, only twenty-eight percent submitted proposals. Of the few who did so, only about sixty-nine percent eventually executed them successfully.

Figure 7 shows that just more than half of the forty-eight producers of Cablexpo programming were those who sustained their interest from the first survey through to the cablecast. The remainder (47.9%) were individuals outside

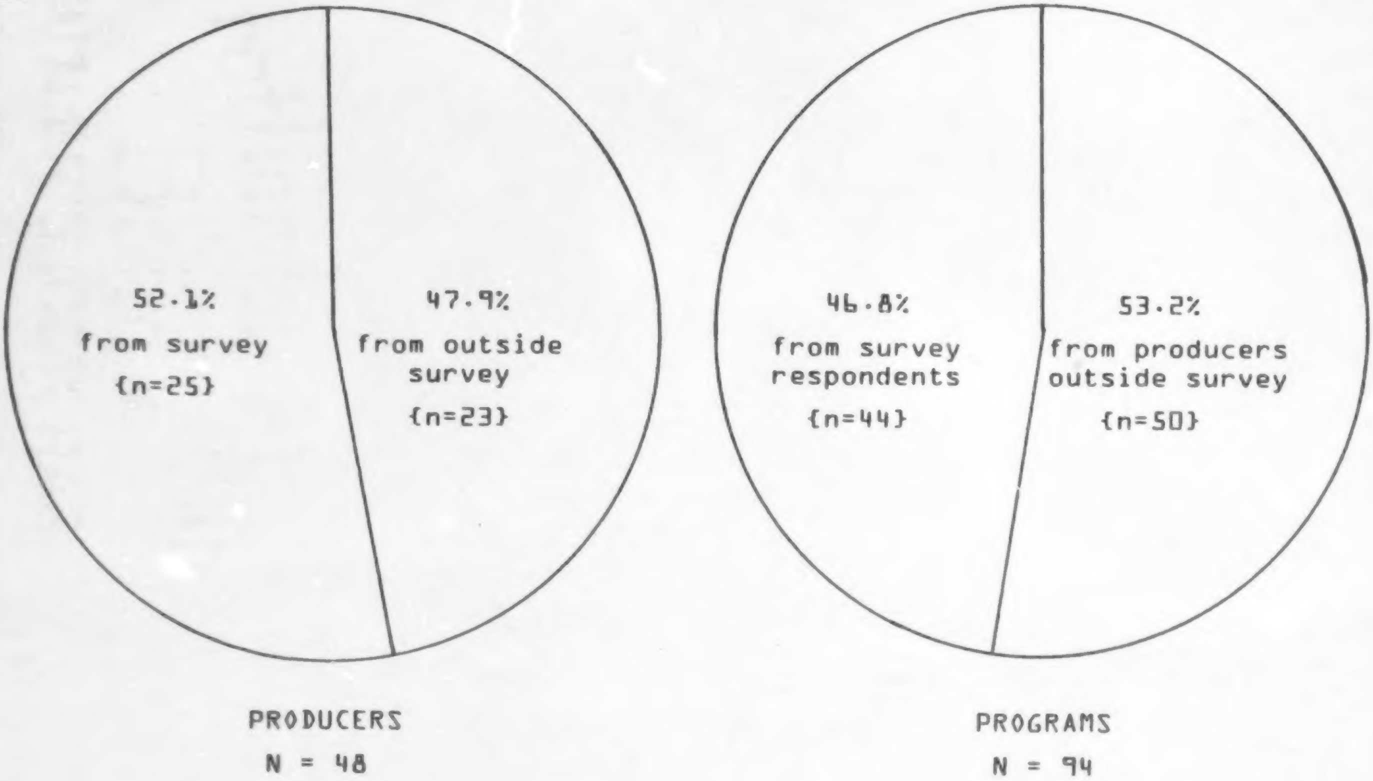

Figure 7. Portions of producers and programs drawn from survey sample

the survey-based participant development effort.

By subpopulation, the left side of Figure 8 shows that fifty-four percent of all volunteer producers were students, but only thirty-five percent of them were members of the original survey. This is in striking contrast to University services producers who, while representing only thirty percent of the total number of producers, were drawn fully from the survey sample. Faculty participated the least (about seventeen percent of Cablexpo's producers), and thirty-seven percent of these were drawn from the original survey.

Participation

Overview A total of 207 members of the University actively volunteered themselves in some way to Cablexpo. In addition, six individuals outside the University contributed time and energy to the project (Table 16).

Those who contributed an average or above average amount of time and energy to Cablexpo were distributed across more than twenty-five student organizations and University services, as well as more than twenty academic areas (Figure 9). The amount of time expended ranged from approximately two hours to over 125 hours. The first seven groups on this list spent the majority of time, ranging from over 125 hours to approximately seventy-five hours.

Participation as a program sponsor Another way of obtaining a measure of the breadth of participation in

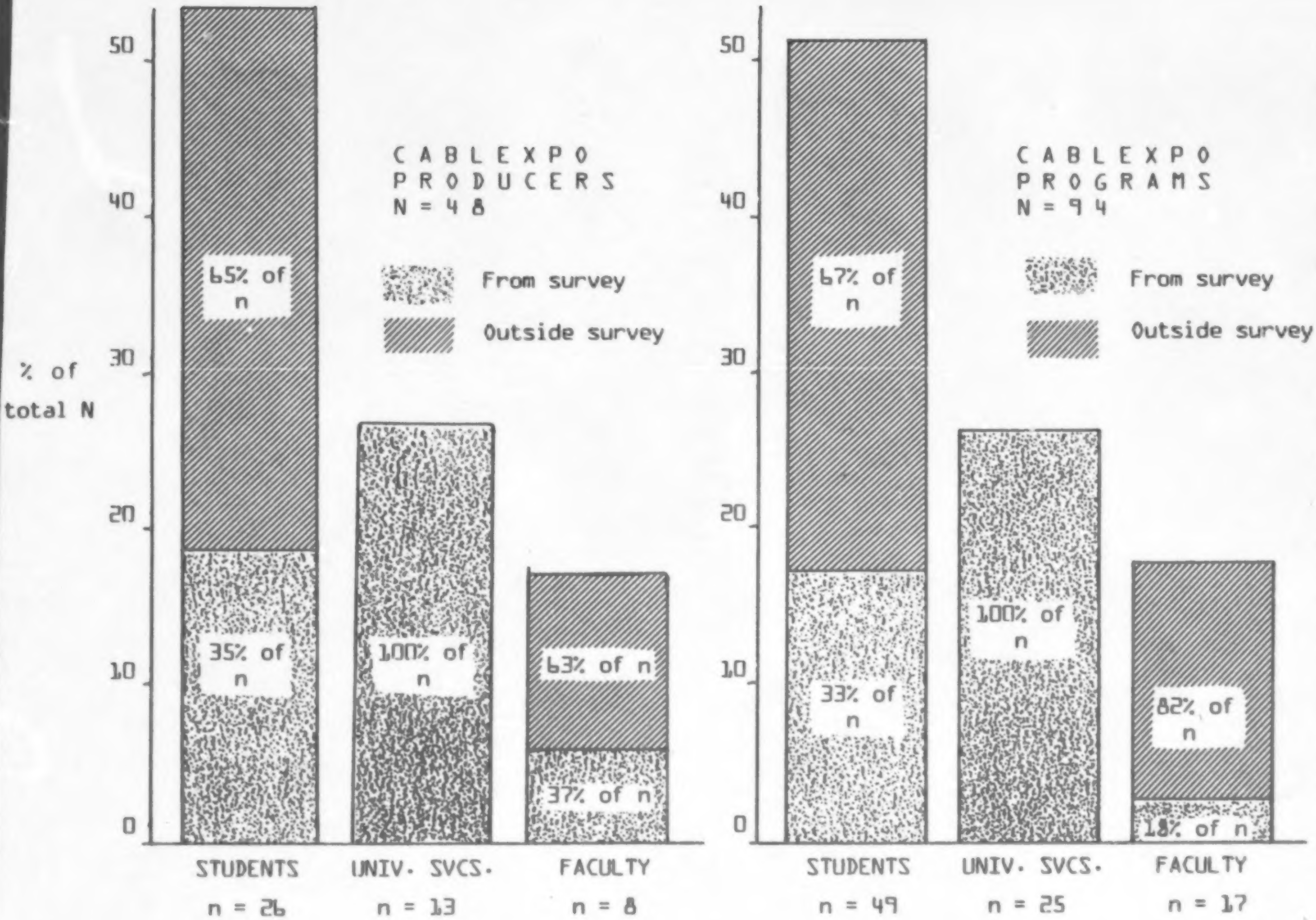

Figure 8. Proportion of survey to outside-survey producers and their programs, by subpopulation

Journalism/Mass Communication
Telecommunicative Arts
Sigma Delta Chi
Political Science
Meteorology
Environmental Awareness Club
ISU Daily
Office of Student Life
Media Resources Center
ISU Library
Curriculum and Instructional Media
Secondary Education
Inter-Varsity Christian Fellowship
Speech
Horticulture
Home Economics
History
Art Design/Community Planning
Ames Science Fiction Association
ISU L-5 Society
YWCA
Iowa State Center
Air Force ROTC
ISU Cooperative Extension
English
Telecourse Program
Financial Aid and Student Employment
Cyclone Sabres
United Native American Student Association
ISU Information Service
ISU Christian Fellowship
Towers Residence Association
Science and Humanities Peer Advising
Business Administration
Biology
Office of Continuing Education
American Nuclear Society
Brunnier Gallery
International Educational Services
Survey Group, Statistics
Microbiology
Ames Laboratories
Animal Ecology
ISU Research Foundation

Figure 9. Organizations and academic areas from which Cablexpo participants were drawn, in order of time expended, in person hours

Table 16. Type of participation by individuals in Cablexpo

Producers of original programs	35
Personnel engaged by producers for original programs	128 (est.)
Producers of previously-produced programs	12
Cablexpo staff	14
Additional cablecast crew	13
Miscellaneous assistance	5
Non-University volunteers	6
Total:	213 (est.)

Cablexpo is to analyze the programming as to the type of sponsoring entity. While the expenses for producing a cable program were minimal, this approach can provide a more accurate picture of the diversity of programming.

Table 17 uses a classification similar to that used in Tables 7 and 8. The scheme in Table 17 has been modified in two ways to reflect some specifics of this experimental demonstration. First, because many individuals (mostly from media-related academic areas unaffiliated with any particular organization) produced programs independently, and because Cablexpo itself commissioned programs, these two new categories were added under "Students."

Second, so as not to skew the data, a separate subheading was included for the Research Foundation under "University services." The Foundation was extracted from the "Academic support" subheading (see Table 8) because it contributed a large, disproportionate share of programming to the cablecast as a sponsor.

Table 17. Sponsorship of Cablexpo programs

	No. of Programs	No. of producers	Rank order	Rank order in survey
STUDENTS				
Honorary, academic or professional club, chapter, sorority or fraternity	13	5	1	1
(Unaffiliated, media-related--see text	13	7	-	-)
(Cablexpo--see text	9	5	-	-)
Special interest (ethnic/racial)	7	5	2	5
Service	3	3	3	4
Religious	3	2	4	6
Sports/recreation	1	1	5	2
Military	1	1	5	9
Sorority/fraternity	0	0	9	3
Political	0	0	9	7
Fine/performing arts	0	0	9	8
	50	29*		

---

*Some individuals produced programs for more than one sponsor; therefore, these figures total more than the actual number of Cablexpo producers.

Table 17 (Continued)

	No. of Programs	No. of producers	Rank order	Rank order in survey
UNIVERSITY SERVICES				
Personal support/ enrichment	6	5	1	1
Off-campus audience	4	4	2	5
Academic support	4	2	3	3
Tenant	1	1	4	4
Administrative/ physical plant	0	0	5	2
(Research Foundation --see text	14	1	-	-)
	29	13*		
FACULTY				
Academic class	10	3	-	-
Individual member	3	3	-	-
Department/college	2	2	-	-
	15	8*		

As in the original survey sample, honorary, academic or professional organizations sponsored the greatest number of student-generated programs, virtually tying with the unaffiliated media-related category. As can be surmised from the number of producers in these categories, their high level of program representation can be attributed to the higher number of programs produced by each producer.

The two most obvious discrepancies between the rank orders of the survey list campared to this list are with sports/recreation and sorority/fraternity organizations. The former was third in predominance in the survey, yet last in the list of program sponsorship. The latter was third in predominance and yet did not sponsor any programming whatsoever. Also, special interest(racial/ethnic) sponsors, as a group, produced proportionally more than may have been predicted from the survey.

University services also showed two irregularities as to their predominance in the University: administrative/physical plant as the second-most common type did not sponsor any programming, and the off-campus audience services contributed the third-highest amount of programming even though their numbers on campus were proportionally the fewest.

In the faculty subpopulation, three members produced a total of ten programs with their classes, three produced programs outside the academic setting, and two produced programs for their department or college.

Participation as a program producer There were a total of forty-eight producers of programming which appeared on Cablexpo's cablecast. All but one were directly affiliated with the University: she had hired TCA Production Club members to produce a series of three half-hour instructional programs. These were accepted at her request.

A number of producers contributed more than one program to the cablecast and these frequencies are found in Table 18. Most (thirty individuals) produced one program each, but five produced three each and four produced two programs each. One individual produced nine programs (it was a combination of six previously-produced and three original) and another, fourteen (all previously-produced).

Figure 10 compares the number of student, University service, and faculty producers, and the number of programs that each of these subpopulations produced, to their proportion of the total N of 1,826. It shows that while the faculty represented over sixty percent of N, it contributed less than twenty percent of the total Cablexpo programming. In contrast, University services contributed about three times its proportionate share of producers and programs; and students just less than twice.

It should be noted here that while the University services and faculty subpopulations were identical to those of the survey, the student subpopulation was modified to compensate for an oversight which occurred when this subpopulation was originally defined. The researcher's intent was to define the subpopulation to be all those students who might have a direct interest in utilizing an access cable

Table 18. Frequencies, number of programs per producer

This number of producers	Each produced this number of programs	Extension
30	1	30
5	3	15
4	2	8
2	4	8
2	5	10
1*	9	9
1**	14	14
	Total:	94

---

*This was Cablexpo's president.

**This was the assistant director of Media Resources.

channel; however, only the presidents of student organizations were selected, and an important segment of the student population--the approximate 125 in the video/film production curricula--was left out. These have been included as part of the n (515) for the student subpopulation in Figure 10. Without exception, this modified subpopulation was the pool of students from which all student-produced Cablexpo programs eminated. This fact supports the contention that the student subpopulation is more useful if defined in this manner.

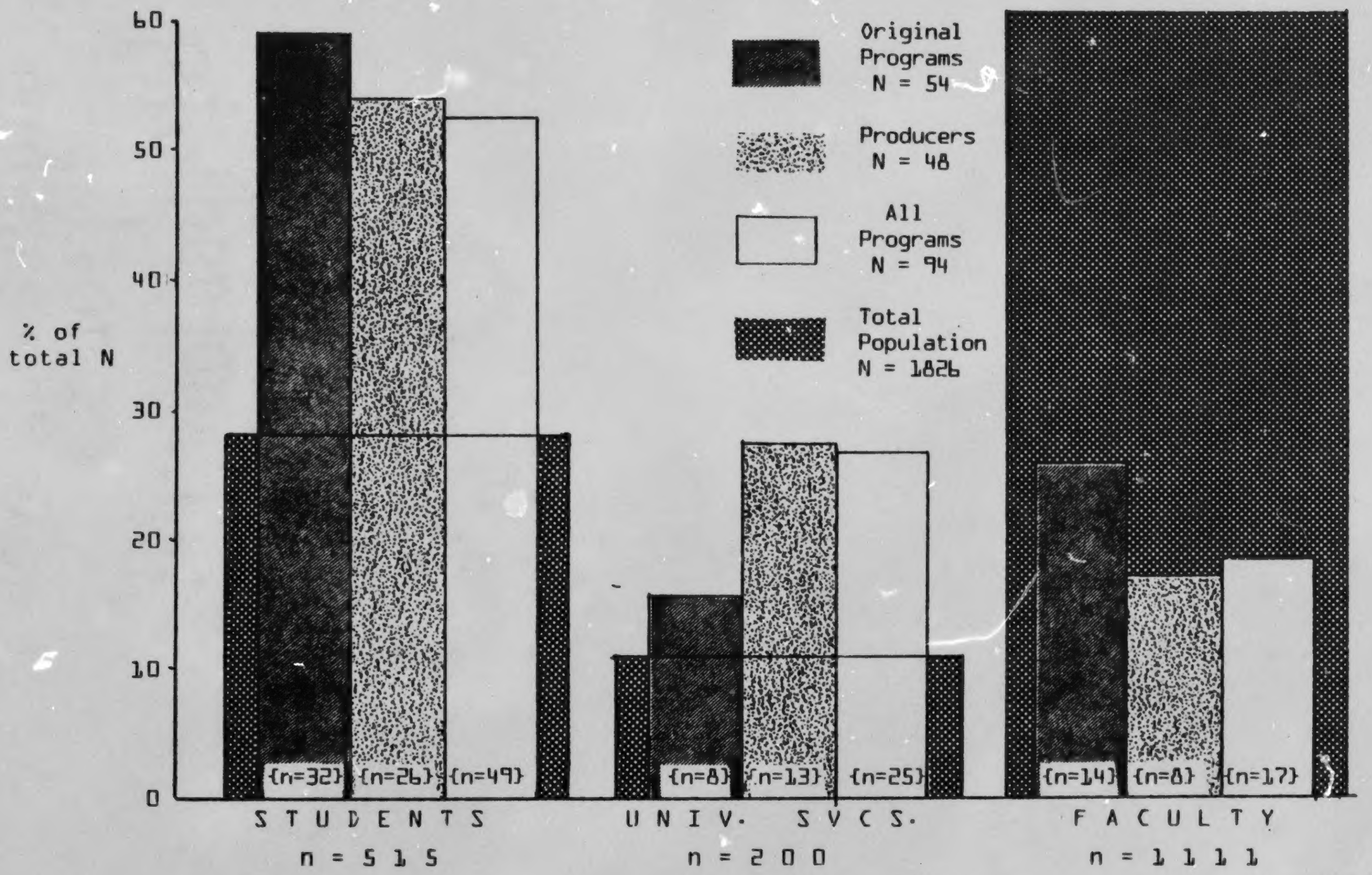

Figure 10. Share of cablecast, by subpopulation

The cablecast programming

Overview Fifty-four programs were produced or completed specifically for Cablexpo and forty which had been produced previously were submitted voluntarily to the experimental demonstration for cablecasting. Of the fifty-four original programs, twenty-five were videotaped and twenty-nine were produced live in the studio. Table 19 summarizes the Cablexpo programming, showing the number of original and

Table 19. Number of original and previously-produced programs and their producers, by subpopulation

		ORIGINAL	PREV. PROD.	ORIGINAL & PREV. PROD.	TOTAL
STUDENTS	Producers	18	5	3	26
	Programs	32	17	n/a	49
UNIV.SVCS.	Producers	6	6	1	13
	Programs	8	17	n/a	25
FACULTY	Producers	7	1	0	8
	Programs	14	3	n/a	17
MISC.	Producers	0	1	0	1
	Programs	0	3	n/a	3
TOTAL	Producers	31	13	4	48
	Programs	54	40	n/a	94

previously-produced programs, by subpopulation. The table also shows the number of producers responsible for this programming. Note that four individuals submitted both original material and material produced for other media.

This section will deal primarily with the style and content of the ninety-four Cablexpo programs as a whole. The following section will treat the fifty-four original programs in a number of ways in order to better analyze the production demands created by them.

The style and content classification schemes in Table 20 were devised to summarize the access cable television programming presented during Cablexpo. The schemes are intended to be useful to most universities utilizing or planning to utilize access cable television channels.

Style The fully-scripted/edited presentations which head the list in predominance (n=36) were primarily, although not exclusively, those with a large budget and produced prior to and independent from the Cablexpo effort. The talking head(s) style (n=33), which can include one or more people on camera, was second in prevalence during the cablecast, and the programs under this heading varied widely in their production values--from one static camera to switched multiple cameras; from live only to all videotape; from a professional one-on-one interview to an into-the-camera monologue.

Table 20. Various styles and contents of cablecast programs

STYLE	
Video/film/slide presentation (fully scripted/edited)	36
Talking head(s) (perhaps some editing if on videotape)	33
Mixed format	10
Cinema verite documentary	9
Stage performance	3
Alpha-numeric (electronic bill-boarding)	3
Total:	94
CONTENT	
Topical information	37
Orientation (promotion/publicity/position)	26
News/weather	11
Instruction	8
Entertainment/event	5
Demonstration/how-to	4
Religious	3
Total:	94

The mixed format category includes those programs which have combined two or more of the other styles to create a hybrid. One example would be a live, primarily talking-head, newscast using scripted and edited stories on videotape. There were ten programs using the mixed format in the cablecast.

Cinema-verite documentary (n=9), its definition long debated, is characterized as a program which may or may not have a narrative storyline, but certainly whose visuals depend solely on action uncontrolled by the producer. Stage performance (n=3) could be, in a strict sense, included in this classification; however, these have been listed separately because of their unique nature. Normally stage performances are scripted, rehearsed, and then simply recorded verbatim by the camera.

The last style, Alpha-numeric, has been described previously. The fact that there are only three programs listed in this category is somewhat deceiving because two of them each represent an average of three totally different "taped programs" (on floppy diskettes) each day of the cablecast. These were created fresh each day immediately prior to their transmission over the system. Therefore, these three programs represent a total of thirty-seven different presentations, shown almost exclusively over the special channel (B) set aside for them. For statistical purposes, however, this figure of three producers and their three "taped" programs is reflected in all data.

Content The content classification scheme (same table) is also descriptive of the many purposes for which programming can be produced for a university access channel. Topical information, which heads the list at thirty-seven programs, is probably the least specific, and in that sense it is a kind of miscellaneous category. Generally, however, a topical information program can be defined as a discourse on some subject with no intention by the producer to accomplish anything more than inform the viewer.

In contrast, the second most common program content type, of which there were twenty-six during Cablexpo, was orientation. Here, orientation was taken in the broad sense--to include not only those programs which objectively related some aspect of a special interest or cause of the producer or sponsor, but also those which were identified as promotion or publicity for some thing or event. Also, if a strong editorial position was taken in a program, this fact was cause enough for it to be included in this category.

The remaining content types--news/weather, instruction, entertainment/event, demonstration/how-to and religious--should be self-explanatory.

Figure 11 is a matrix of the most frequent combinations of style and content for the programs shown during the cablecast. As could be logically surmised, the most common was a fully-scripted/edited video/film/slide presentation on some informative topic. Second most common was a talking head discoursing also on some informative topic.

	Video/film/ slides	Talking head(s)	Cinema verite documentary	Mixed format
Topical information	18 (19%)	13 (14%)		
Orientation	10 (11)	9 (10)	5 (5%)	
Instruction	7 (7)			
News/weather		5 (5)		5 (5)

Figure 11. Most frequent combinations of style and content of Cablexpo programs

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Assistance requested by producers

It would be most useful to analyze separately the thirty-five volunteer producers who created the fifty-four original programs for Cablexpo, versus those who merely submitted programs which had been produced for other reasons (Figure 12). Although they did not necessarily have greater interest in Cablexpo, it was the original program producers who most requested equipment, time, and advice from Cablexpo

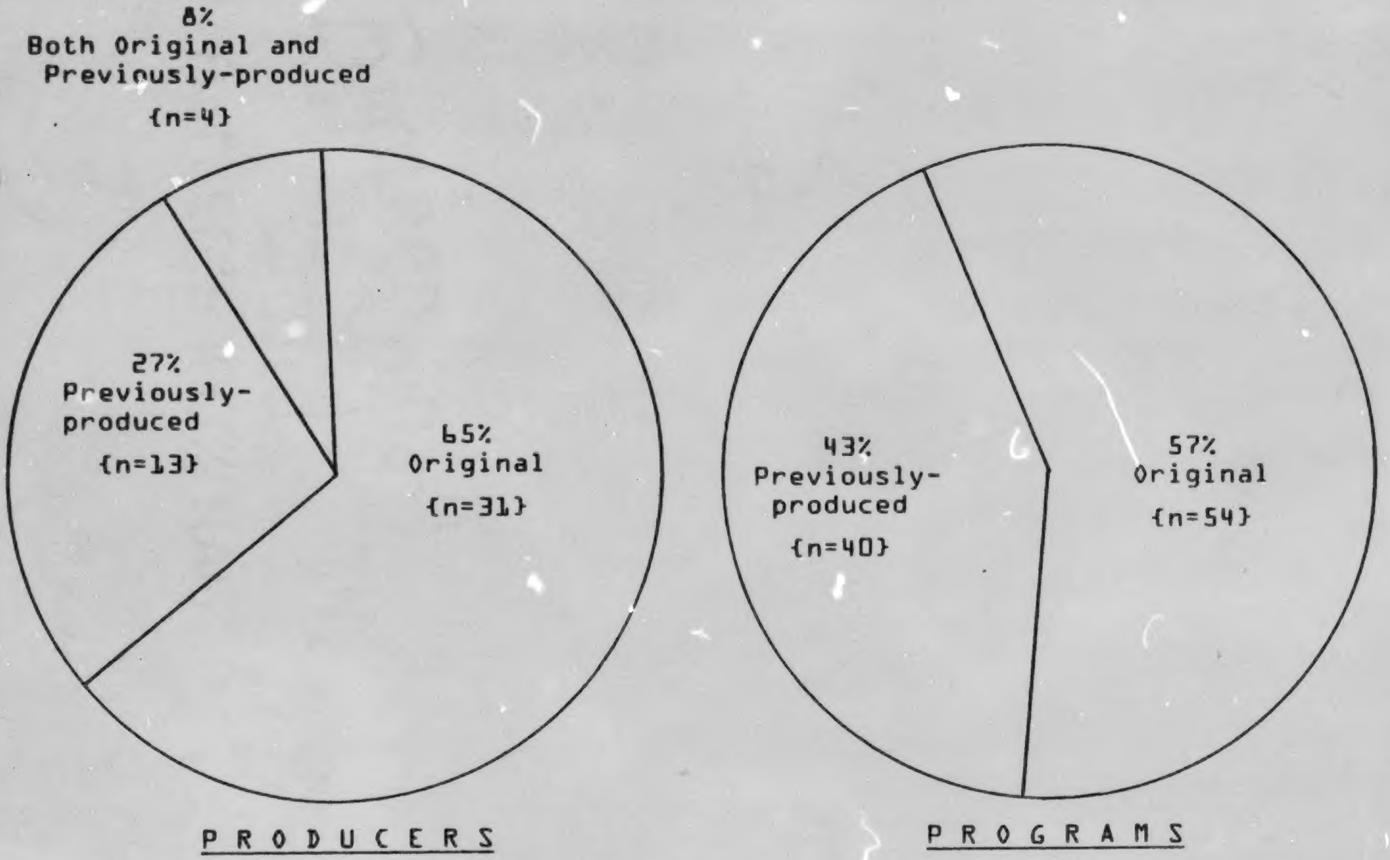


Figure 12. Proportion of original to previously-produced programs, and their producers

and media-producing segments of the University. The original programming and the number of producers responsible for this programming is summarized in Table 21.

The type and degree of assistance requested by these thirty-five producers was dependent primarily on two factors: (1) whether the program was produced live in-studio or on videotape, and (2) whether or not the volunteer producer had experience with telecommunication media. This section will examine the extent of this demand first comparitively among the subpopulations, and then by these two variables. The next section will discuss how Cablexpo and the University systems reacted to the demand.

Table 21. Number of live and videotaped programs and their producers, by subpopulation

		LIVE	VIDEOTAPE	LIVE & V.T.	TOTAL
STUDENTS	Producers	7	13	1	21
	Programs	18	14	n/a	
UNIV. SVCS.	Producers	5	2	0	7
	Programs	5	3	n/a	8
FACULTY	Producers	3	4	0	7
	Programs	9	5	n/a	14
TOTAL	Producers	12	22	1	35
	Programs	29	25	n/a	54

By subpopulation A greater proportion of students and faculty produced original programming for Cablexpo than did the University services, eighty-one and eighty-eight percent, respectively (Figure 13). In contrast, only fifty-four percent of University services producers developed original programs.

These proportions shift slightly if one looks at the programming produced by these subpopulations, because some individuals were responsible for more than one program each. The right half of Figure 13 shows that the faculty produced the greatest percentage of original programs (eighty-two percent). Looked at in this manner, only sixty-five percent of the student programming was original and thirty-two percent was originally produced by University services.

Live versus videotape production In general, live production placed more time demand on the Cablexpo structure, and videotape production put more equipment demand on the University's resources. In total numbers, fifty-four percent (twenty-nine) of the fifty-four original programs were live and forty-six percent (twenty-five) were produced on videotape. However, as is shown in Figure 14, there were almost twice as many producers who chose to use videotape than those who chose to produce their programs live.

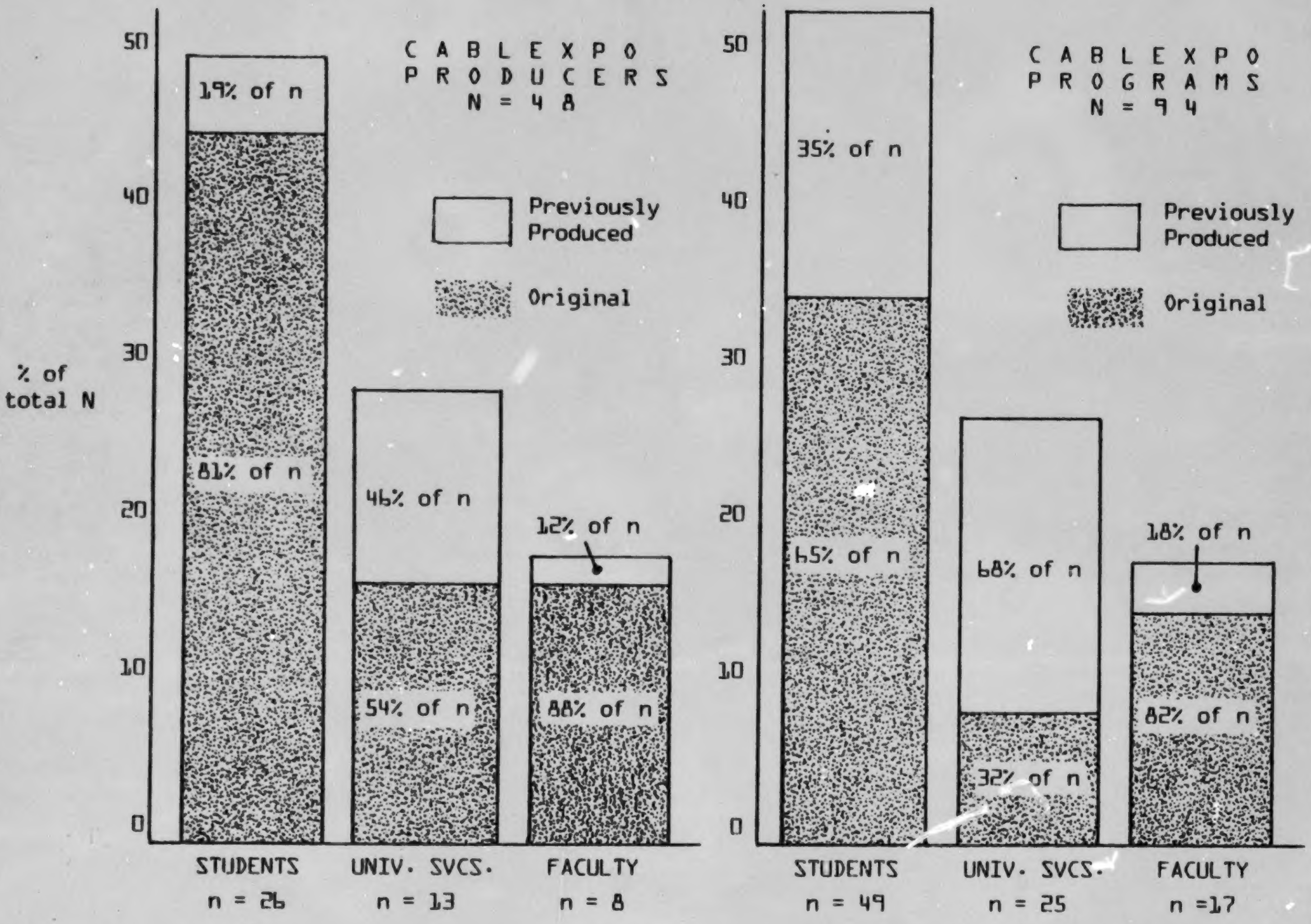
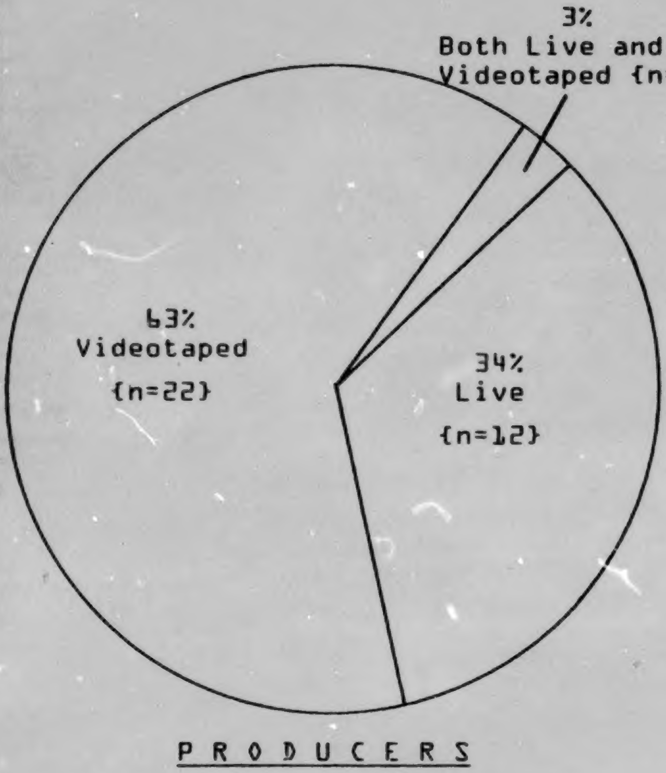


Figure 13. Proportion of original to previously-produced programs, and their producers, by subpopulation



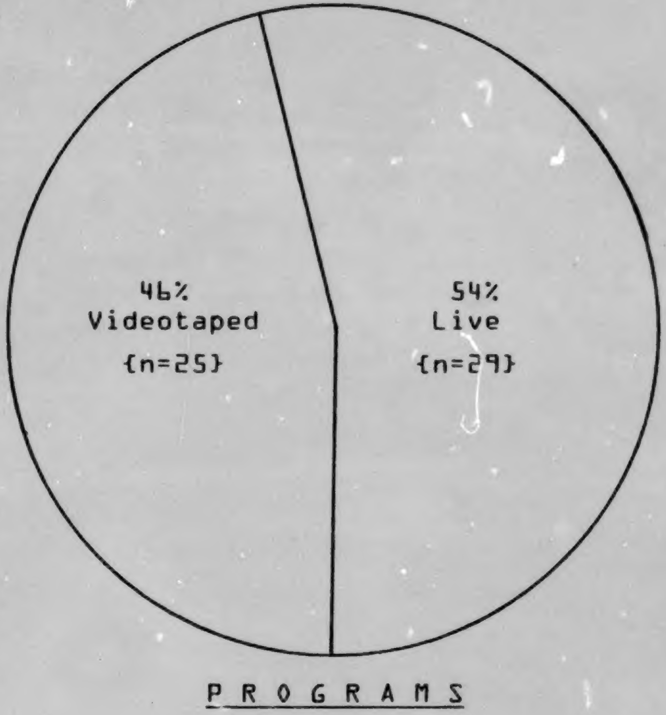


Figure 14. Original programming, proportion of live and videotaped programs, and their producers

Figure 15 is a graphic representation of the proportion of the producers responsible for original live and videotape programming on Cablexpo. This has been superimposed over the proportion of programs submitted by that subpopulation. The figure shows that while there were approximately equal numbers producing live and videotaped programming within both the faculty and University services subpopulations, student producers preferred videotaping at a rate of more than two to one. But in terms of numbers of programs, all live program producers created more material than videotape producers. In fact, each student and faculty producer of a live program produced about three times as many programs as their counterparts who produced on videotape. The production of live series accounts for this high average.

In terms of hours of live programming produced by each subpopulation, the students presented ten, the University services six and the faculty fifteen.

Previous experience with telecommunication media

Every one of the twenty-nine live programs which were presented on Cablexpo required basic studio support; however, there were seven live programs produced by four individuals which demanded considerably more assistance Cablexpo staff for pre-planning and production. The reason for this was that these volunteer producers were "first-timers," or inexperienced with telecommunication media.

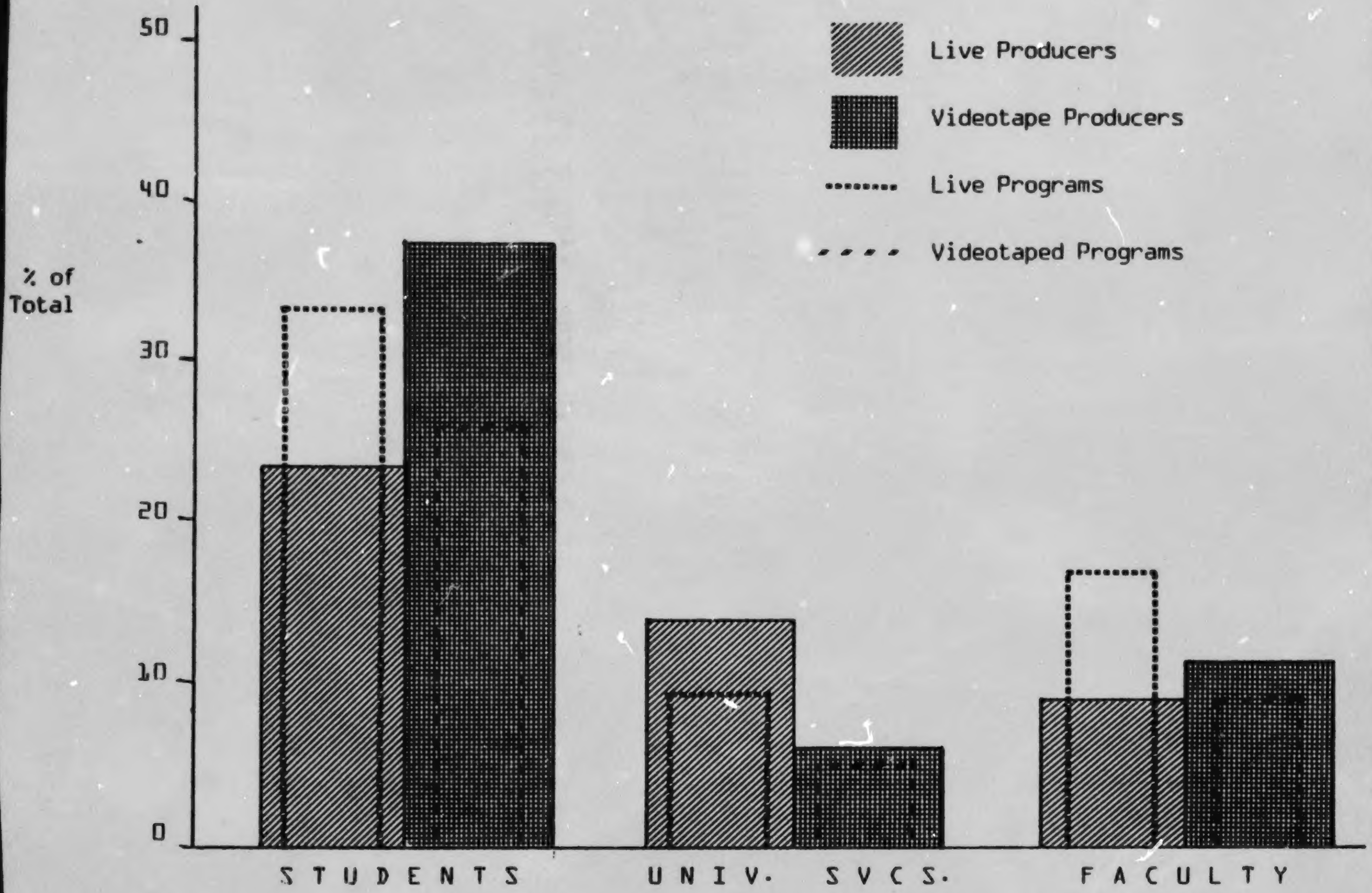


Figure 15. Original programming, proportion of live and videotaped programs, and their producers, by subpopulation

Of the thirty-five original program producers, fourteen were first-timers. As shown in Figure 16, approximately half of the University services and faculty, and a third of the student subpopulations, were first-timers to video production. Also, whereas the first-timers were about evenly split between videotaped and live productions in the University services and faculty subpopulations, no inexperienced students produced live programming.

Other factors   During the cablecast, the live programming was grouped into seven or eight intensive periods. Within these periods, care was taken to schedule at least fifteen minutes of non-live "buffer" between each program. Except for the news and weather programs which followed consecutively, this was done; however, due to the fact that most live programs needed more set-up time and no program was given less than its planned-for running length even if it did begin late, the cablecast was frequently behind schedule. But because the videotaped programs which were shown between the live programs were often shorter than their allotted segments, it was possible to get the programming back on schedule by the end of the evening.

There was a tendency for most producers to choose to produce their live programs earlier in the week, on the weekdays prior to the beginning of the VEISHEA celebration. Table 22 shows that fewer hours of live programming were

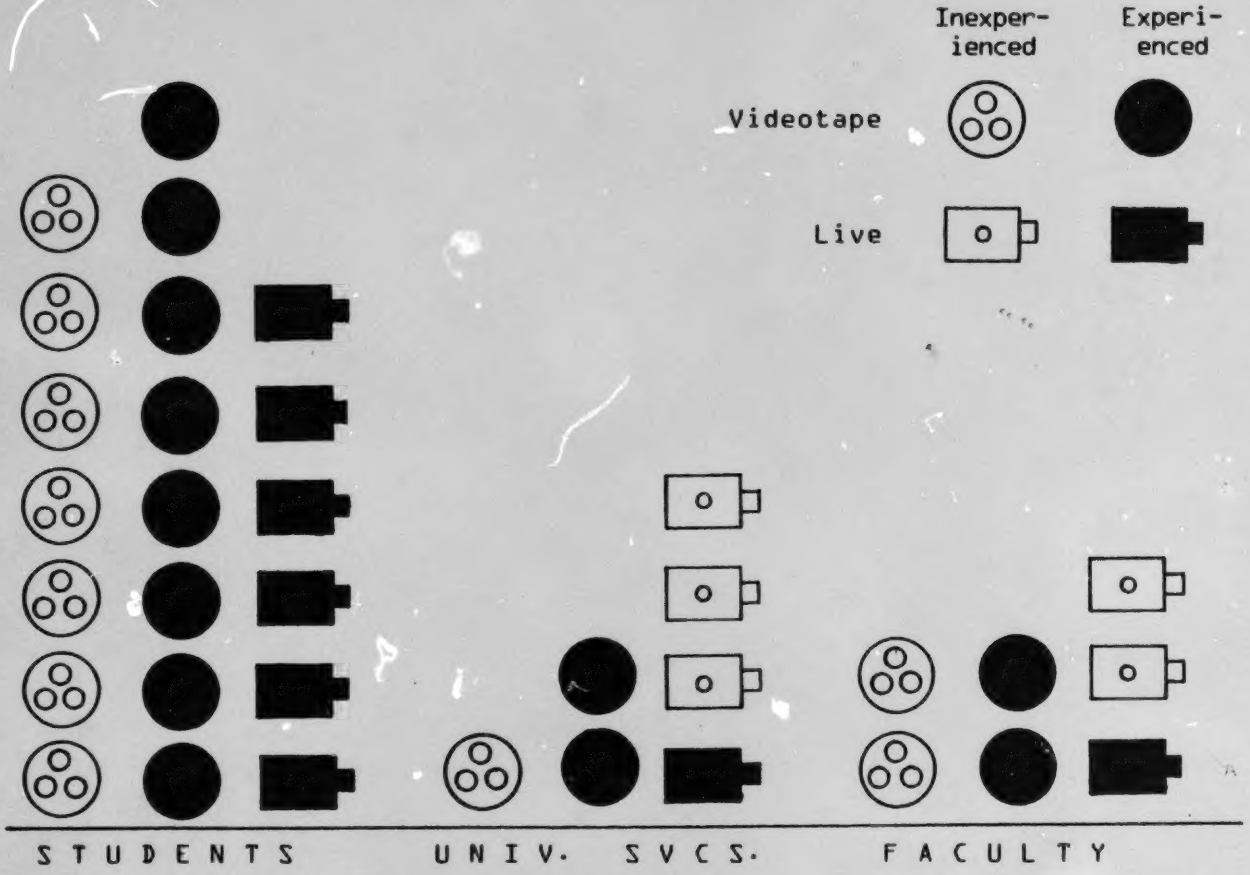


Figure 16. Experienced and first-time producers, by subpopulation

produced nearer the weekend. Even though Cablexpo-sponsored programming was scheduled during these slower times, the overall effect remained the same--more demand, more pressure and more confusion than necessary in the studio during the opening days of the cablecast.

Table 22. Hours of live programming, by day of the week

	Length of program day	Volunteered programming	Cablexpo-sponsored pgmg	Total
Tuesday (5/5/81)	6	3.0	0.0	3.0
Wednesday (5/6/81)	11	2.5	0.0	2.5
Thursday (5/7/81)	14	2.0	0.75	2.75
Friday (5/8/81)	14	2.0(+1)*	0.75	3.75
Saturday (5/9/81)	14	0.25	0.75	1.0
Sunday (5/10/81)	11	0.0	1.5	1.5
Totals:	70	10.75	3.75	14.5

* Because of technical difficulties, one producer who was originally scheduled to re-play a videotape recording of his one-hour live program on this day had to return to do the "re-play" live.

Production and post-production equipment Demand for video production equipment (namely video cameras and recorders) at Media Resources in April 1981 (the time when virtually all production for Cablexpo took place) was sixty-one percent above the mean monthly average for that academic year (Kent, 1981). Although sufficient data do not exist with which to determine the extent Cablexpo may have contributed to this demand, it can be said that producers would have found it more difficult to borrow equipment from the MRC in that month than in any other month of the year.

In addition to the equipment at Media Resources, the thirty-five original program producers utilized equipment from: the Instructional Resources Center, TCA, WOI-TV, MRC's Film Production Unit, Information Service, Bio-Medical Communications, and Ames High School. At least one producer was known to have used his home video (VHS) outfit for part of his production. Most of the time the utilization was above board; however, the author was aware of at least three instances in which equipment was used rendered without proper permission being obtained because of fear that permission would have been denied.

Similar conditions existed for students in need of post-production equipment or services. Whereas production equipment was available, however limited, there was no video editing equipment available to students outside of the five or six University services and academic areas which reserve them strictly for their own use. Only three weeks before Cablexpo began did TCA acquire a video editing console, but this too was in such long awaited demand by TCA students that it often was in use fifteen hours a day. As a result, it did not affect Cablexpo to any measurable extent.

Production assistance from Cablexpo

Although complete data do not exist, it can be estimated with reasonable accuracy that of the thirty-five producers of original programming, seventeen were provided some form of direct production assistance by Cablexpo (thirteen of these were live-program producers), another twelve found assistance elsewhere, and the other six were self-sufficient. Cablexpo originally intended to supply each producer of original programming a production advisor. This was done for only some of the thirty-five producers due to the fact that Cablexpo could only muster a pool of four qualified video directors plus a few others with considerably less media experience. Further, because the members of this pool were volunteers, the assistance they afforded to the producers often had to be sparse and late in coming.

Even though the assistance provided by Cablexpo to these producers was inadequate by some standards, the producers were generally pleased with their completed programs and only seven individuals were definitely known to have aborted their projects because they lacked equipment and/or assistance. However, there were two other groups in which there were undoubtedly people whose plans were frustrated because of the shortage of staff production assistance: (1) the forty-five students and University services directors who reported in the posttest survey that they independently discussed possible participation in Cablexpo but never completed a program (see Table 24), and (2) the thousands of individuals both within and outside the survey subpopulations, any one of whom could have made an effort to develop a program idea and had it go unnoticed.

Procurement and use of studio equipment

Procuring equipment for the cablecast itself was easier than for pre-cablecast videotape production. During VEISHEA, Media Resources equipment was in heavy demand. But because VEISHEA was a school holiday, most other departments and services were willing to lend equipment. Figure 17 shows the equipment used during the cablecast.

In order to transmit the signal of the two Cablexpo channels to the headend, two RF-modulators were needed, and, before the cablecast began, it was recommended that the videotape channel (R) should be outfitted with a time base corrector (TBC). One RF-modulator and the TBC were borrowed from Heritage Cablevision, and the other RF-modulator was borrowed from Ames High School. No other RF-modulators or TBCs were available in the area.

It was discovered that because of the wide variation in technical quality of videotapes being cablecast, it was

Heritage Cablevision:

2	Hitachi GP-7 color cameras & tripods
1	3M 11143M Minicom Color Switcher/SEG
1	Camera operator-to-director headset intercom
1	Sony 2860 U-matic Video Recorder/Player
2	Panasonic color monitors
1	Wavetech waveform monitor
1	Microtime 1500 Time Base Corrector
1	Catel VFM2000 RF-modulator
Asstd.	Video and RF cables
4	Convertors and installations
1	Sure M67 audio mixer

Telecommunicative Arts:

1	Studio, lights, sets, props, AC cables, etc.
2	Color television receivers
1	Sony 2000 U-matic Video Player
Asstd.	Microphones, audio cables

Instructional Resources Center:

1	Sony color monitor
1	Sony monochrome monitor
1	JVC VHS format VTR
1	Shure three-input audio mixer
Asstd.	Audio cables and connectors

Media Resources Center:

2	Sony color television receivers
2	AV rolling stands
(4	Color receivers held on reserve)

Bio-Medical Communications:

1	Sony color television receiver
1	Sony 2860 U-matic Recorder/player
(4	B & W receivers held on reserve)

Beacon Electronics:

1	Apple III microcomputer
2	Apple II microcomputers
3	External disc drives
2	Color television receivers

Figure 17. Equipment used during the Cablexpo cablecast

Varnum Computers:

1	Atari 800 microcomputer
1	External disc drive

Ames High School:

1	CATEL VFM2000 RF-modulator

Northwestern BELL (rental & installation charges):

2	Black rotary-dial multi-line office phones
2	Consecutive telephone numbers
300	feet telephone cable

Figure 17 (Continued)

necessary to introduce a waveform monitor into the system to assist in adjusting the TBC and RF-modulator. Even so, because the TBC was not of high quality, the signal received on home receivers often appeared better when the TBC was bypassed. Apparently, in its attempt to correct certain parts of imperfect signals, the TBC degraded the picture because its range of correction had been exceeded.

The two microcomputers operated flawlessly; however, the six reporters from the ISU Daily who wrote stories on the Apple needed about two days to get accustomed to the differences in the operation between it and that of the more sophisticated word processing equipment used at the newspaper. Technically-speaking however, both microcomputers transmitted acceptable cable television-compatible signal, although only the Atari 800 was capable of transmitting NTSC video signal without modification.

The two telephones and telephone lines which were installed in the studio for call-in programs were underutilized. Although they were very convenient to the staff, crew and producers during the cablecast, very few viewers took the trouble to call.

As a Strategy to Modify Attitudes

Avenues to awareness

Aside from word-of-mouth, there were fourteen ways through which a member of the University could have become aware of Cablexpo. Eleven of these were initiated by Cablexpo itself:

- Display advertising in the ISU Daily
- Telephone call from the Cablexpo participant development staff
- Newsletter published by Cablexpo
- Squibs in Faculty and Staff Newsletters
- Personal appearances by Cablexpo staff during staff recruitment, fundraising and lobbying
- Booth in the Memorial Union
- Program guide flier distribution throughout Ames
- Cablexpo T-shirts
- Squib in the monthly Cablevision program guide

- Program guide published in the Ames Tribune
- The cablecast itself

Three other avenues through which a member of the University may have been made aware of the event were:

- Articles in the ISU Daily
- Articles in the Ames Tribune
- News story on campus radio

Attention paid to Cablexpo

Three variables were used as a measure of how much attention was paid to Cablexpo: (1) awareness of the event, (2) viewing of the cablecast, and (3) participation (even if indirectly involved) in the programming. These results are summarized in Table 23 which shows that a fairly high level of simple awareness was achieved among all subpopulations--the faculty was the lowest with about sixty percent and the University services was the highest with about ninety percent. When the two non-academic subpopulations were asked how they first heard of Cablexpo, a clear majority of students said the *Daily*; however, among University services directors, no one medium was clearly indicated.

The percentage of students surveyed who viewed the cablecast at least once was relatively high (about eleven percent) considering the dearth of viewing locations available to them. University services directors (a group which had a higher rate of Cablexpo participation and greater opportunity to see the cablecast in their residences) viewed at a lower rate than students. Over half (fifty-four percent) of the faculty who were home subscribers tuned in to some part of the cablecast.

Table 23. Awarene[illegible], viewership and participant of the cablecast, by subpopulation

	Students	University services	Faculty
	n=164	n=71	n=154
AWARE OF CABLECAST	123 (74.4%)	65 (90.1%)	92 (59.7%)
	n=109	n=44	
ISU Daily	47 (43.0)	13 (25.0)	
Phone call	22 (20.2)	10 (19.2)	not asked of this subpopulation
Word-of-mouth	19 (17.4)	9 (17.3)	
Newsletter	12 (11.0)	12 (23.1)	
	n=164	n=71	n=155
WATCHED CABLECAST	12 (10.8)	47 (8.5)	22 (14.2)
	n=215	n=81	n=165
PARTICIPATED	15 (7.0)	22 (27.2)	9 (5.5)

The overall participation rates, as reported by the respondents themselves, were twenty-seven percent for University services, seven percent for students and less than six percent for faculty.

To find out what portion of students and University services directors were motivated enough to consider participating, those aware of the cablecast were asked if they talked with their organization about participating. If they responded in the affirmative, they were asked how far along they got with the discussion and why. Table 24 shows the results of this questionning. What stands out is that almost forty percent of the students and about sixty percent of the University services were interested at some point in the development process. Almost half of these, however, never made it beyond the talking stage to actually move on the idea.

Table 24. Extent of considered and actual participation of those students and University services respondents aware of the cablecast

Rank	Item on continuum	Students n=123	Univ. Svcs. n=65
1	Didn't talk about participating	72 (58.5%)	22 (33.8%)
2	Talked about it--no interest	6 (4.9)	4 (6.3)
3	Interested--no initial action	23 (18.7)	16 (24.6)
4	Initial action--no production	3 (2.5)	0
5	Production--no post-production	2 (1.6)	1 (1.5)
6	Finished late--didn't deliver	2 (1.6)	0
7	Participated	15 (12.2)	22 (33.8)
Total of those who were, at some point, interested in participating		45 (36.6)	39 (60.0)

Open-ended evaluations

Two groups of respondents in the posttest survey were asked what factors help and what factors hinder cable program production. The two groups were those from the original sample who ultimately participated in Cablexpo, and those individuals who discussed the possibility, but did not, for one reason or another, participate.

Asked what factors help in the completion of an access cable program, these respondents gave answers as summarized in Table 25. Of the seven most-mentioned factors, the first two in both the student and faculty subpopulations were production assistance and time/proper planning. The remaining five were considerably less important: strong commitment, having an experienced person, and money. Money, plus the last two responses on the list, Support/encouragement from administration and Visually-interesting subject matter, were suggested primarily by the two subpopulations employed by the University (faculty and University Services).

Table 26 summarizes the hindrances to production of cable television programming as mentioned by the respondent. The most frequent was the time required for planning/preparation. This response was mentioned about two-and-a-half as many times as the next: money. Money was of minor concern to students, but important to University services and faculty. Lack of experience and the process of planning/organ-

Table 25. Factors which survey respondents felt help the successful completion of a cable program

Rank	Item	Students 42 cases	Univ. svcs. 22 cases	Faculty 139 cases	Total 177 cases
1	Production assistance	19 (45.2%)	4 (18.2%)	29 (20.9)	52 (67.3)
2.	Time/proper planning	11 (26.2)	2 (9.1)	30 (21.6)	43 (56.9)
3.	Strong commitment	6 (14.3)	3 (13.6)	10 (7.2)	19 (35.1)
4.	Experienced person	2 (4.8)	5 (22.7)	6 (4.3)	13 (31.8)
5.	Money	1 (2.4)	2 (9.1)	23 (16.5)	26 (28.0)
6.	Support/encouragement from admin.	---	2 (9.1)	8 (5.8)	10 (14.9)
7.	Visually-interesting subject matter	---	---	14 (10.1)	14 (10.1)

NOTE: Respondents were allowed two responses for this question, therefore, percentages total more than 100%. In addition, items are rank ordered according to these cumulative percentages.

izing were third-most mentioned, followed by lack of production staff. Limited viewership (likely a comment on the fact that the campus was not wired) was sixth.

Equipment being unavailable, while not a concern to the University services or faculty, was a strong enough concern to students to keep it in the top seven.

Table 26. Factors which survey respondents felt hindered cable television program production

Rank	Item	Students 42 cases	Univ. svcs. 22 cases	Faculty 139 cases	Total 177 cases
1	Time required for planning/ preparation	20 (43.5%)	18 (48.6%)	55 (36.7%)	93 (128.8%)
2	Money	2 (4.3)	6 (16.2)	44 (29.3)	52 (49.8)
3	Lack of experience	4 (8.7)	6 (16.2)	11 (7.3)	21 (32.2)
4	Process of planning/ organizing	9 (19.6)	2 (5.4)	8 (5.3)	19 (30.3)
5	Lack of production staff	4 (8.7)	6 (16.2)	---	10 (24.9)
6	Limited viewership	3 (6.5)	2 (5.4)	8 (5.3)	13 (17.2)
7	Equipment unavailable	7 (15.2)	---	---	7 (15.2)
8	Ignorance of potential uses/subject matter	3 (6.5)	1 (2.7)	8 (5.3)	12 (14.5)

NOTE: Respondents were allowed two responses for this question, therefore, percentages total more than 100%. In addition, items are rank ordered according to these cumulative percentages.

Changes and correlations for opinions and interest levels

In order to describe the degree of attention paid to Cablexpo, a dummy variable was constructed from the data summarized in Table 23 (awareness, viewership and participation, in that order). To see if the degree of attention paid may have been correlated to any of the opinion variables, a Pearson correlation test was done which revealed that how a faculty member felt about ITV in the posttest was significantly correlated to the degree of attention paid to Cablexpo (p=.003), whereas no correlation was found to the member's pretest feelings about ITV (p=411).

Two opinion/interest questions were asked of all subpopulations, and the change from the pre- to the posttest was computed for each individual. It can be seen from Table 27 that all subpopulations showed a net gain in their interest in seeing the University develop or use cable television, with faculty and University services directors leading students with an eighteen and seventeen percent change, respectively.

Table 27. Change in the answer to the question: "Would you like to see the University develop/use cable television?" by subpopulation

	Students n=161		Univ. Svcs. n=70		Faculty n=150	
Positive	42	(26.1%)	18	(25.7%)	46	(30.6%)
Negative	30	(18.7)	6	(8.6)	19	(12.7)
No change	89	(55.3)	46	(65.7)	86	(56.7)
Net gain	12	(7.4)	12	(17.1)	19	(18.0)

A significant direct correlation was also found among faculty between awareness of Cablexpo and which direction the member changed opinion regarding cable development. In other words, if a faculty member was aware of Cablexpo, it was likely that that person felt more positive toward ISU cable television after Cablexpo than before.

The results of the other opinion/interest question are shown in Table 28. In this case the net change was computed for each subpopulation regarding their interest in occasional participation in cable television programming. The faculty remained essentially the same; however, students and University services showed substantial losses. (Possible reasons for this change are given below in Discussion.)

Another dummy variable was derived in order to measure the degree of success a particular respondent achieved in

Table 28. Change in the answer to the question: "Would you occasionally participate in cable television programming?" by subpopulation

	Students n=160		Univ. Svcs. n=69		Faculty n=152	
Positive	16	(9.9%)	10	(14.4%)	28	(18.4%)
Negative	45	(28.1)	26	(37.6)	31	(20.4)
No change	99	(61.9)	33	(47.8)	93	(61.2)
Net loss	29	(18.1)	16	(23.2)	3	(2.0)

the participant development process. This was derived from the continuum outlined in Table 24. Confirming previous findings, newsletter subscribership was found to be significantly correlated to this variable among the student population (f significance=.001, 1 df). How the students changed their opinion about ISU's use of cable television was also directly correlated to this variable (p=.025). That is, the further along they got with their program, the more likely it was that they felt more positive about the University's development of cable after Cablexpo than before.

The students did not undergo any real change in their opinion of the value of cable to their own organizations (Table 29); however, those who did change their minds in the positive direction were, again, significantly more likely to have achieved a greater degree of success in the development process (p=.033). This is consistent with the personal interviews held with Cablexpo volunteer producers which were overwhelmingly positive toward the goals of the project.

To determine whether or not a change may have occurred in a faculty member's expectancy of the University's development of a full-time access cable channel within five years, a question was asked on the pre- and posttests (Table 30). A net change of about sixteen percent in the positive direction was found. This change was found to be negatively correlated with the individual's change in hope that the University develops cable; that is, the greater an individual became interested in seeing the University utilize cable, the less the expectation for it to happen. This change in expectancy was also negatively correlated to age, with younger faculty members more likely to have become more positive toward Cablexpo.

Table 29. Change in the answer to the question: "Is cable television of value to your organization?" by subpopulation

	Students n=160	University Services n=70
Positive	31 (19.3%)	15 (21.5%)
Negative	28 (17.5)	10 (14.3)
No change	101 (63.1)	45 (64.3)
Net gain	3 (1.9)	5 (7.1)

Table 30. Change in faculty's response to the question: "Do you think ISU will develop a cable channel within the next five years?"

	Faculty n=134
Positive	36 (26.9%)
Negative	15 (11.2)
No change	83 (61.9)
Net gain	21 (15.7)

CHAPTER V. DISCUSSION

Cablexpo '81 and its adjunct publicity campaign were the major components of an experimental demonstration project designed to accomplish the following:

- Discover what is   Cablexpo was a feasibility study which gathered facts and tested systems in order to uncover those existing conditions which might affect future cable development.
- Demonstrate what could be   It provided, as a showcase, a tangible example for utilization of the University's cable television access channels.
- Get things moving   Cablexpo was part of a planned strategy designed to catalyze cable development by effecting change in opinions and level of interest among those in the ISU community. In effect, the process of the demonstration experiment would help bridge the gap between what is and what could be at the University.

The major advantages of this demonstration experiment were that it:

- gave focus to the energy of those who were interested in seeing some use made of ISU's access channels
- was relatively easy to execute, logistically-speaking, because it made only short-term, concentrated demand on equipment, facilities,

and people's time

- organized and articulated those factors which are influencing, and perhaps inhibiting, the growth and development of access channels at the University.

Each function will be examined separately, drawing on the findings of the study in order to make summative evaluations of the efficacy of the project and to suggest alternative approaches to its procedure.

Cablexpo As a Feasibility Study

One measure of success of a feasibility study is the quantity and quality of its findings. In such terms, Cablexpo uncovered a substantial body of information valuable to members of the University--from how well a microcomputer can operate as an electronic billboard, to the salient attitudes which may have been affecting cable television's adoption. How well the approach used in this undertaking worked will be discussed below under Administration. Those findings of major importance will be discussed in three following subsections: Interest and participation, Demands on the system, and Attitudes and opinions.

Administration

Referring to Figure 5, it can be seen that Cablexpo's activities were compressed into a relatively short span, and scarcely no aspect of the undertaking was unaffected by a shortage of time. Illustrations of the short periods of time involved include:

- Initial contacts were made with administration December 1980, five months prior to the cablecast
- The project "went public" about 1 February 1981, only three months before the cablecast
- Those who might have considered participating in the cablecast were initially contacted an average of eight weeks before the cablecast

A much more workable schedule might have been to make initial contacts at least nine months, and perhaps a year, prior to the cablecast, and announce the event publicly about six months in advance. In this way, the potential participants would have had the greater part of a semester to plan and execute their programs and/or involvement with the project. In addition, this amount of time might have been sufficient to improve the faculty's rate of participation which, in comparison with the other subpopulations, was very low.

Figure 5 also reveals that advanced publicity began after the staffing and fundraising efforts. Had the publicity preceded these critical aspects by at least a month, it might have been easier to recruit student staff volunteers, and some of the dysfunctional attitudes which so affected the promotional aspects of the study might have been minimized. Further, strategy could have been more effectively formulated with which to counteract misperceptions about cable and thus facilitate the fundraising effort.

The staffing effort Retaining staff volunteers throughout the course of the project was difficult. Drawing on past experiences with volunteer efforts, the author felt that fifty-percent attrition rate might be expected. It was, however, about eighty-five percent. In addition, it had been hoped that the starting number would have been higher, especially from the TCA area and from the public meeting effort. There are a number of possible factors which may have contributed to this problem.

First, as an event without precedent or a track record, Cablexpo suffered from a lack of identity. Second, recruiting was done late in the school year and many students had already made committments to other, more established extra-curricular activities. The first factor would, of course, would be less important each year if the event were to be repeated. Initiating the publicity much sooner might have been one possible answer to this and the second factor.

As far as reducing attrition among staff is concerned, however, Figure 5 shows that there was probably too much delay between the peak of the staffing activity and the peak of the first major staff function, participant development. It might have been more effective to provide immediate activities for involving the volunteers, thereby strengthening their commitment to the project.

The administrative structure Given the innovative nature of Cablexpo, it may have been premature to use the eight-committee structure of the original administrative model (Figure 2). As discussed below, the researcher still believes the model to be sound for certain limited purposes; however, it provided too little motivation and required too much tedious labor to keep up a sufficient level of volunteer interest.

Cablexpo's original structure was a sound one for conceptualizing the disparate operations and functions of an access channel demonstration project. But to put it into operation, perhaps more consideration should have been given to the needs, resources and capabilities of the people and the situation. Originally, a committee was assigned for each of the eight functions when, in reality, no more than three distinct activities were going on at any one given point in time. There were too few well-defined duties and rewards--not only to attract volunteers, but also to retain them until the time when their particular interests and talents could be optimally utilized.

A better procedure might have been to organize around the three chronological stages of the participant development process. In this manner, one could develop a strategy to meet needs which would utilize volunteers' varied talents and interests--either administrative or technical--at different times during the developmental process. The modified committee structure (Figure 3) was a move in this direction.

Regardless of administrative structure, the greatest challege was getting commitments from volunteers far enough in advance and securing guarantees that are not broken over time. In replicating this project, a manager's imagination will be tested to devise some kind of system of rewards or other device to attract and hold volunteers' interest for varying amounts of time during the siege of a semester.

One suggestion might be to approach several professors and departments who might be willing to assign administrative tasks to their students. If this were possible, however, due care should be taken to foster an image of impartiality toward the participating faculty and attempt to balance involvement across several departments. In this way, issues related to overlapping responsibilities are minimized.

Even with the advantage of this improved model, one should be prepared for inevitable modifications that will occur during the execution of the project. If continual evaluation is taking place properly, the system will be modified to remain workable. The slowly-evolved modification to Cablexpo's structure, for example, was in reaction to the conditions encountered with the unpaid student help.

The recruitment, management and retainment of good volunteers, whether or not they are students, requires close and constant managerial attention. This means that one will spend at least one third of one's time assigning tasks, training and motivating, monitoring progress, adjusting goals, and meeting other challenges which arise due to the limited and unpredictable nature of most volunteers' free time.

Budget If the largest single expense in the Cablexpo budget is set aside (the $1215 for the public education seminar), the remaining $1430 is quite modest considering the programming output of the cablecast. This amount also bore the full burden of a number of startup costs, not the least of which was the telephone. The telephone system was by some standards a disproportionately large expense ($201) for an event of six-day duration. However, it must be regarded as an irreplaceable asset to the cablecast operations even though the potential of its original intent--as a viewer call-in device--was not reached.

Telephones The call-in capability of the telephone system was not used very extensively, nor very well, during the cablecast. It was suggested to the producers by Cablexpo that the first calls be "rigged" with their own people in order to break the ice. This is a common practice, but even this technique alone cannot be expected to trigger a substantial volume of call-ins unless: (1) enough potentially-interested viewers are notified ahead of time and are watching, (2) the subject is particularly controversial, or (3) the host of the program is somewhat skilled in evoking (or provoking) viewer response.

Microcomputers Cablexpo used the microcomputer in a very useful fashion as fill between programs and to convey news and information around the clock. But microcomputers could have been employed to lighten the administrative burden as well. With an inexpensive data management program available for most popular microcomputers (or with one written by a computer science student) the upkeep of the mailing list, the progress of the participants in the development process, and the cablecast program schedule could have been handled much more efficiently.

One future option might be to use the University Computation Center for these purposes; however, with the availability and potentially greater facility of microcomputers, it might be more expedient to use these. With an eye to future programming ideas, the microcomputer also makes feasible such applications as call-in games, home computing demonstrations and remote computer-assisted instruction.

Publicity The two major vehicles for Cablexpo publicity were the ISU Daily and the Cablexpo newsletter. While the newsletter's purpose was more to inform and help modify opinion and interest in participation, the relationship with the ISU Daily was nurtured for its publicity value and for its assistance in programming the alpha-numeric channel. Because of their high visibility and readership, both were effective vehicles for their respective purposes as evidenced in the findings.

A relatively ignored, but nonetheless important publicity goal of Cablexpo was for the volunteer producers to individually publicize their programs. Because Cablexpo was rather short-term, producers may have felt that it wasn't worth the extra effort to promote their own programs. More specific reasons may have been: (1) they didn't have time to do it, (2) they felt that people could not or would not watch their program anyway, (3) they were not proud enough of it to warrant the extra effort required to publicize it, or (4) they simply perceived their efforts as a learning experience in production and not to actually reach an audience. Whatever the reason(s), the producers did very little advertising for their programs beyond word-of-mouth to their own circle of friends. In short, the concept of narrowcasting was not emphasized or sufficiently utilized.

Narrowcasting Within the concept of narrowcasting, the fact that only a few viewers see a program is perfectly acceptable--one does not need a large, general audience to economically justify the production as is often necessary in commercial broadcasting. Nor is the content intended to interest the lowest common denominator of viewer. Therefore, narrowcasting dictates that a program must be developed with a specific audience in mind, and then once produced, a proper amount of publicity must be done to insure that that relatively small group of people who should and might wish to see the program will tune in. Although this seems like common sense, it is not often perceived by the producer who becomes involved with the mechanics of program production and neglects the pre-planning and the long range goal of marketing the final product.

The concept of narrowcasting has long been an element of procedure for instructional media development. Production does not begin until long after the intended audience has been defined and the program's learning objectives have been articulated. Likewise, access cable is narrowcasting, and not only in the sense that there are fewer viewers, but also in that the content of the program is narrowly matched to the specific interests of the viewers and the specific goals of the program producer.

The natural temptation is to regard access cable as a general audience medium--and this is what befell most of the Cablexpo producers just as it befalls many instructional developers. But because general audience production is best accomplished with a big budget, the producers of access cable narrowcasting must pay a considerably greater degree of attention to audience definition and planning by objectives.

Regarding publicity, Cablexpo was able to underwrite no more than one advertisement (the program schedule) in the Daily because of budget restraints. The project and all its participants would have benefitted from additional publicity paid for by individual volunteer producers. In future efforts it might be possible to interest say students and professors of public relations, design, or marketing to take on an advertising campaign as an individual project or as a class assignment.

Program series Cablexpo had five original program series. Series programming had several beneficial effects: (1) more individuals were given the opportunity to participate, (2) the producer was able to improve technique from one program to the next, (3) viewers could expect a specific program to be on a certain channel at a certain time each evening or afternoon, and (4) the Cablexpo administrative burden was reduced.

Series should be expected and encouraged for these reasons, but not to the detriment of the single-program producer. Care should be taken so that the occasional producer of access cable programming has just as much opportunity to participate as the major, "habitual" producer. The natural temptation might be to favor series over single programs just because the administrative and production burdens are lighter; however, a Cablexpo-like structure must be designed with strength and flexibility in order to meet a wide range of demands. If the managing body does not actively solicit participation and accommodate the needs of all sectors of the university, the channel(s) might appear to be owned and operated by one department, individual or special interest group on campus. This certainly would not benefit the University as a whole.

Interest and participation

As the data show (Figure 6), interest levels in participating in cable programming varies among different segments of the University population. For example, the faculty had a relatively low interest level which remained fairly consistent over time. Presidents of student organizations initially had high interest, but this rapidly diminished as the participant development process moved along. The University services had the best record of all in that the highest percentage initially were interested and comparatively few dropped out along the way.

University services directors were the most dependable source of interest and contribution to programming, never once dropping below sixty-percent from one developmental stage to the next. The students, on the other hand, were the most erratic between stages--varying from almost seventy-five percent expressing interest to about a twenty-five percent submitting proposals, to less than seventy-five percent successfully completing their proposals.

Almost as dependable as the University services subpopulation (but more in the predictable sense than the prolific), was the faculty. While they consistently showed a very low level of interest throughout the participant development process, faculty members nonetheless completed all the proposals which they ultimately submitted. The greatest attrition occurred in going from Stage Two to Stage Three when repondents were required to put their words into action.

These facts should indicate that while none of the subpopulations should be ignored, each should be handled differently so that efficiency could be increased and frustration and disappointment reduced.

The range of participation across the University was, even if inefficiently achieved, nonetheless very good. The format and style of the resultant programming was somewhat predictable, but the content was quite diverse and well-matched to the characteristics of the University itself without any particular effort by the Cablexpo staff to make it so.

The survey/participant development technique This project used the pretest survey results as the basis for contacting potential participants for the cablecast. In order to discern its utility, the technique must be viewed from several different perspectives. Since fully half of the cablecast producers were identified by the survey, this technique demonstrated some value. On the other hand, it could also be reasoned that because the other half of the producers were not identified by the survey, the procedure was not worthwhile. The latter position is strengthened by the fact that such a low percentage of those contacted in the survey-related development effort actually completed programming.

On the basis of this reasoning alone, the participant development technique cannot be considered effective because of the great deal of time spent phone-calling potential participants. But the issue is not clear cut because the technique was probably the major contributor to one of the most valued showcase characteristics of Cablexpo: the breadth and diversity of its programming. It is difficult to conclude whether or not this diversity could have been achieved without such dedicated activity, but yet another consideration is the value of personal contact with potential access channel users--an action which, while not entirely directly fruitful, may have had considerable value in terms of good will and other intangibles.

Rather than abandoning the technique because of time considerations, it could be inexpensively streamlined with computer-assisted management. In this way, its utility could be increased with the addition of a needs-assessment. In other words, while contact is being made to develop potential volunteer producers, an accounting could be made of the capabilities, resources and important concerns of each respondent.

Demands on the system

At the outset of Cablexpo, the researcher predicted that about twenty percent of its programming would be original and the other eighty would be "off-the-shelf" from various media-producing individuals and entities on campus. The results, however, indicate that three times more original programming was produced than predicted. As a result, there was that much more demand on the Cablexpo and University systems.

Generally, Cablexpo met only the live, in-studio needs of producers in an acceptable manner. Preparation and planning advice to first-time users was minimal--all directed to University services and faculty because every first-time student user utilized videotape rather than producing live in the studio.

Equipment acquisition was a problem experienced primarily by students. In general, they relied on those few outlets available to them for borrowing production and post-production equipment (such as the MRC). Those with prior media experience, however, had access to the facilities of media production-related academic sectors of the University. Few students requested advice from Cablexpo, and those who did were first-time users looking for equipment. While some University services directors and faculty also made equipment requests, most seemed to favor the advantages of live production and relied more heavily on Cablexpo to provide the live, in-studio support.

Alternatives for media production at ISU To better understand these trends, it is important to examine the needs of a potential producer and the different production options open to each of the three subpopulations. In general, there are three basic needs that any producer must satisfy to successfully complete a video program: (1) production equipment (camera, recorder, etc.), (2) post-production equipment (editing facilities), and (3) production advice or expertise.

Faculty at Iowa State University go to the Media Resources Center for all three needs, unless furnished by their department or college. If the content of their program is instructional, they get it done for the cost of materials. Also, as faculty members, they have highest priority, and for certain things and under certain circumstances, arrangements may be made with the campus commercial station WOI-TV to accommodate their needs.

Some University services have their own in-house production capability. If not, they probably also approach Media Resources who will, as contractor, meet their needs. Unless what they are doing is instructional in nature, they will receive second priority as well as be requested to pay for consultation, equipment and production.

For students, the resources available are considerably more limited. If they have a faculty member deal with Media Resources Center for them in the course of doing legitimate academic work, they attain the level of priority normally accorded only the faculty. This would usually be only for equipment and not services, however, as it would be rare for a student to enter in long range instructional planning and development with a professor. If in a department with available expertise and facilities, their chances of being accommodated improve considerably.

Students wishing to do production for non-instructional purposes have two alternatives: one where all three needs might be met, and another where only production equipment is available. Both, however, are very limited. The first alternative is to approach students in TCA and the TCA Production Club. These students might consider to take on a project for academic credit, or, if there is some form of remuneration, as a club project. If they agree to assist, their advice and the production and post-production equipment in the TCA area of the Speech department (and possibly WOI-TV) are made available.

There is a major problem facing anyone who might plan to depend on TCA students or their Production Club for production assistance. It was Cablexpo's experience that the number of students in the TCA area and the TCA Production Club who took on someone's Cablexpo program as their own project were very few. The reason for this was not directly apparent. The number of individuals in TCA production courses in any given semester is not that great. When projects are assigned, many students tend to group into crews, and many of these crews, unless strongly urged by someone to pick up an assignment from an outside entity such as Cablexpo, will tend to follow their own leads and interests for selecting subject matter. As a result, the total number of brokered projects taken on in any given semester is very low.

The second alternative open to students, but only for equipment, is the Government of the Student Body's VHS-format equipment lent and maintained by Media Resources. The only requirements necessary to borrow this equipment is to have a valid user's card (obtained by attending an hour-and-a-half training session) and to leave a refundable deposit at the lending desk. The problem with this arrangement is that the equipment pool is small and the demand is, especially in October and April, very heavy. Further, when so few items are under constant use, invariably there are times when equipment is down for repair or maintenance.

Regarding Cablexpo specifically, there was little time for faculty and University Services to plan and execute videotaped production. In addition, even if they had attempted to arrange assistance from the MRC, several weeks to several months lead time would have been necessary. One producer who was able to find an MRC employee to volunteer some time to do post-production editing on his production did not meet the deadline and his program was never cablecast.

Attitudes and opinions

Cablexpo was a thesis project, and as such it was vulnerable to criticism. Aside from this fact, which was mentioned frequently as a reason why not to support Cablexpo financially, the project was very effective in bringing to the fore the cable-related dysfunctional attitudes held by students and employees of the University. It was unfortunate that these attitudes were articulated during the funding debates and not before; however, there is nothing so efficient as a debate over money to identify fundamental issues.

While direct debate is certainly an efficient method to identify salient issues, it is at the same time poor strategy to allow it to occur simultaneously with a campaign which is attempting to inform, educate and promote. It would have been far better to have discerned the dysfunctional attitudes in advance of the fundraising in order to allow sufficient time for answering them adequately. One method might have been to include a series of semantic differential pairs and open-ended questions on the pre-test survey which would have, more pointedly and precisely, identified how cable television is perceived in the various subpopulations of the University.

Cablexpo as a Showcase

While the showcase function of Cablexpo turned out to be less than originally intended, it did fulfill that role because it increased the level of awareness about the issues and realities of access television in its relationship to the University. Because of the extensive publicity which a short-term project such as this was able to generate, it was possible to highlight certain aspects and downplay others.

Yet the greatest initial difficulty was to convince people that Cablexpo was a student project benefitting the University and not a cable company promotional campaign.

A second way in which Cablexpo fulfilled its role as a showcase was that it enabled the members of the University to better understand how access cable might be used at Iowa State. As the Cablexpo communications control center was set up and the programming began, there was a discernible change in the tone and content of conversations regarding what the project was all about. The change was from words of skepticism and questions regarding the operational difficulties to revelations of a new-found outlet for creativity and a heightened sense of community. Only when all the planning turned into reality did the true portent of what advantage cable holds come clear to most of the participants and certain other observers. This kind of reaction is the key attribute of a showcase.

But this not to say that the operation was flawless. To the contrary, there was hardly a live program that did not have production slip-ups, and only infrequently did live programs occur on schedule. Also, there were one or two minor conflicts between two studio directors, but these were essentially personality clashes aggravated by the heavy live program schedule during the opening days of the cablecast. As far as what was seen by most viewers and visitors to the studio, however, Cablexpo fulfilled the role of a showcase very well.

The VEISHEA tie-in

The decision to pursue a relationship with VEISHEA had its benefits and disadvantages. On the positive side, it gave Cablexpo an opportunity to affiliate itself with an established organization, and, although the opportunity was not fully pursued, to increase the number of outlets for publicity and sources for programming ideas. It also was the only time in the school year when a great number of people were on campus, but classes were not held. This made the TCA studio available to use by Cablexpo during the cablecast.

The free Cablexpo advertising in VEISHEA's weekend program failed to materialize, and so the most tangible benefit of the arrangement was seen during the Saturday edition of Access ISU, the Cablexpo-sponsored talk show. During this program, several VEISHEA display participants brought their robots, snakes and miniature tractors to the studio for demonstrations and to promote their clubs or academic departments.

The very first major publicity, an ISU Daily first page story headline, prematurely tied Cablexpo with VEISHEA, and this probably worked to Cablexpo's detriment. The implied affiliation, plus the fact that the cablecast coincided with VEISHEA, made it appear to Cablexpo's major potential funding source, the GSB, that Cablexpo should receive greater financial support from VEISHEA.

Also, VEISHEA may have had a limiting effect on the administrative staffing of Cablexpo and the volunteer crew during the cablecast. Although minimal as Cablexpo began, the conflict became more pronounced as the VEISHEA/Cablexpo week approached. At that time it was discovered that instructors tended to schedule tests and place deadlines for papers just before VEISHEA begins--the time which happened to coincide with the beginning of the Cablexpo cablecast. Although this conflict didn't seem to affect the scheduling of live programming, a number of individuals reported that they could not assist during the cablecast because their academic schedule prohibited it.

Viewership

One of the principal devices intended to contribute to the showcase effect was the placement of viewing locations around campus for students and others at the University. As explained above, the existing CCTV system could not be updated in time for the cablecast, but the results from the survey indicated a relatively high viewership among students and faculty. Two occurrences during the cablecast itself also demonstrated the need for such an arrangement.

One evening when the programming was running ten or fifteen minutes late, a faculty producer rushed into the studio six or seven minutes after her program was to begin, concerned that her program might not be shown. The console operator assured the faculty member, who had gathered a group of students around a cable-equipped television just off campus, that the program would begin in just a few minutes more.

On the last day of the cablecast, something occurred which provided a meaningful close to the demonstration project. It was late Sunday evening, about 10:30 PM when a small group of students, associated with an event which a Cablexpo program had documented, made their way across campus to watch their program in Cablexpo's back office. It was the last program to be shown on Cablexpo '81, and their presence late that night in the otherwise empty and dark studio seemed a fitting close to the cablecast.

Cablexpo as a Planned Strategy for Change

It was felt that an important attitude for the members of the University to share before access cable could be adopted was to be in favor of the development of cable television on campus. Cablexpo seems to have made a positive change on that opinion. The faculty and student subpopulations changed most, even though the third subpopulation, the University services, was highest in degree of awareness and rate of participation.

Although the data show that the faculty had the lowest overall level of awareness of Cablexpo of the three subpopulations, the data also show significant correlations with certain variables among those who were aware. The greater the degree of awareness of Cablexpo among faculty: (1) the more positive they came to feel about ITV, (2) the more they wanted to see ISU utilize cable television in the future, and (3) the less they came to expect that this utilization would come within five years. Regardless of the degree of awareness, the entire faculty subpopulation showed a significant gain in cable television interest at ISU.

The students were less affected by their awareness of the event than by their degree of success in producing their programs. The higher their degree of success, the more value they saw in cable television for their organization and for the University.

Overall then, it would seem that for future planned strategy, more effort should be made toward increasing the awareness of the faculty, and greater effort should be made to accommodate the students in their production needs in order to increase their level of success. The data, however, do not suggest any particularly different approach to the University services other than rectifying those shortcomings mentioned earlier with regard to overall operations which would benefit all subpopulations.

Personal interest in occasional participation in cable programming dropped in all three subpopulations. This drop may have been due to several factors. First, the respondents may not have fully realized what it was they were responding to in the pretest, and only when given more information by Cablexpo, did they understand the full ramifications of the question. Second, perhaps after seeing or reading about Cablexpo they didn't like what they saw. This factor may not be significant because of the increase in their interest in seeing the University develop a cable system.

A third factor may have been related to the opinion that Cablexpo could not meet all the production demands made of it. This attitude and the first reason, in the opinion of the researcher, were the two major factors accounting for the drop in interest in future participation.

The major hindrance to participation as cited by all subpopulations was the lack of enough time for planning. Time for planning was also the second-most mentioned factor in helping cable production. These high rankings of the same response on both lists would indicate that this was the most important fault in the execution of the demonstration project. The shortage of time did in fact affect all phases of Cablexpo--from fundraising to the amount of assistance rendered to the producers. But the most important and fundamental item which suffered from this lack of time was the legitimization of the project, or the earning of the license to act from key members of the University.

The process of innovation cannot be rushed. The making of friendships, the development of interpersonal networks, the building of confidence and the clarification of motives--all, while able to be facilitated, cannot occur quickly. Cablexpo did not succeed at this to the extent the author had hoped; however, the Cablexpo's overall success bears witness to the fact that a certain amount of legitimization did take place.

The most encouragement to the researcher came during the three weeks following the end of the cablecast when discussions were held with twelve Cablexpo staff members and twenty-one producers. Except for those individuals who would not be returning to the University the following year, there was virtual agreement that the experience was a positive and valuable learning experience and one worthy of further investment of their time and energy.

Recommendations

For a Cablexpo-like demonstration project

Two requisite conditions existed at ISU which enable and dictated Cablexpo's ultimate form. But even if these conditions were not extant, the overall technique could be generalizable, with modifications, to most universities and colleges which find themselves in similar circumstances.

First, the cable system in Ames was almost completely in place and operating when the project began, and one feeder-access point already conveniently located on campus. Without this feeder line access to a trunk, it would have been extremely inconvenient to originate programming from the cable company's headend, five miles away.

Second, the researcher was able to incorporate the project into his thesis research and thereby absorb a considerable amount of the enormous time demands that are made of a coordinator of an undertaking of this magnitude. Only in circumstances where a paid individual or committed volunteer could spend at least half-time (and then full-time near the cablecast), could this experiment be replicated.

Even with the currently limited resources at most large schools, however, these two conditions should not preclude the possibility that this technique could be applied successfully where the will and motivation is strong. In fact, many campuses are probably more prepared, in terms of physical resources, to undertake this kind of project. Many universities with operating CCTV systems, sufficient quantities of video gear available for student loan, and/or limited existing access programming, may wish to use some form of a demonstration project to expand or improve the breadth and depth of its utilization.

Working guidelines   Although the specific conditions extant on each campus would dictate the character of a project such as Cablexpo, there are some important general guidelines which could be drawn from the findings of the experiment:

1. Identify preconceptions and attitudes Generally individuals are too unaware, too polite and/or too reticent to reveal how they feel about cable television. Questions and inquiries must therefore be pointed and constructive. Of course diplomacy and protocol must be observed.

2. Plan for acceptance   Whereas the bureaucratic procedures governing activities on a college campus are well-defined and ordered, it takes a considerably greater amount of informal activity extended over a relatively long period of time to adequately identify and garner allies, and to develop friendly lines of communication helpful to the cause of the project. People's time and money are scarce resources, and so people must be convinced that theirs will be well spent. This takes time.

3. Diversify programming and participation The implementation period for institutional access cable television is very critical. To

paraphrase a saying, there is nothing quite as permanent as a temporary arrangement. Because access cable television can and should benefit the entire university, early active effort to the extent possible should be made to incorporate as much diversity and breadth into the channel's utilization as there exists in the school. Realistically, one will be limited by time and resources; however, this is a good working philosophy with which to make decisions and set priorities.

4. Conduct a needs assessment There are two advantages to this: one is that information derived from the ascertainment process will be important to any future development of the cable system, and the other is that it can be used as an effective entree toward meaningful and productive relationships with a wide variety of potential broadband system users. Only that innovation which answers real needs will eventually be institutionalized anyway, so an early identification of those needs is an essential step in the innovation process.

5. Monitor producers' progress Only with continual monitoring of the participant development process can demands on staff time and equipment be anticipated and adequately dealt with. Better that the Cablexpo-like structure be the central clearing point for brokering assistance to producers for equipment and production help, especially when there are not sufficient outlets for these needs already in place in the university. Otherwise, first-time media producers acting on their own may meet unnecessary frustration which may result in irreversable damage to their outlook on media production. Below is a model which suggests four considerations of a producer where a Cablexpo-like structure should influence the decision-making process.

Producers' decision-making process The following model is suggested as a construct with which to monitor the progress of producers in a demonstration project dependent

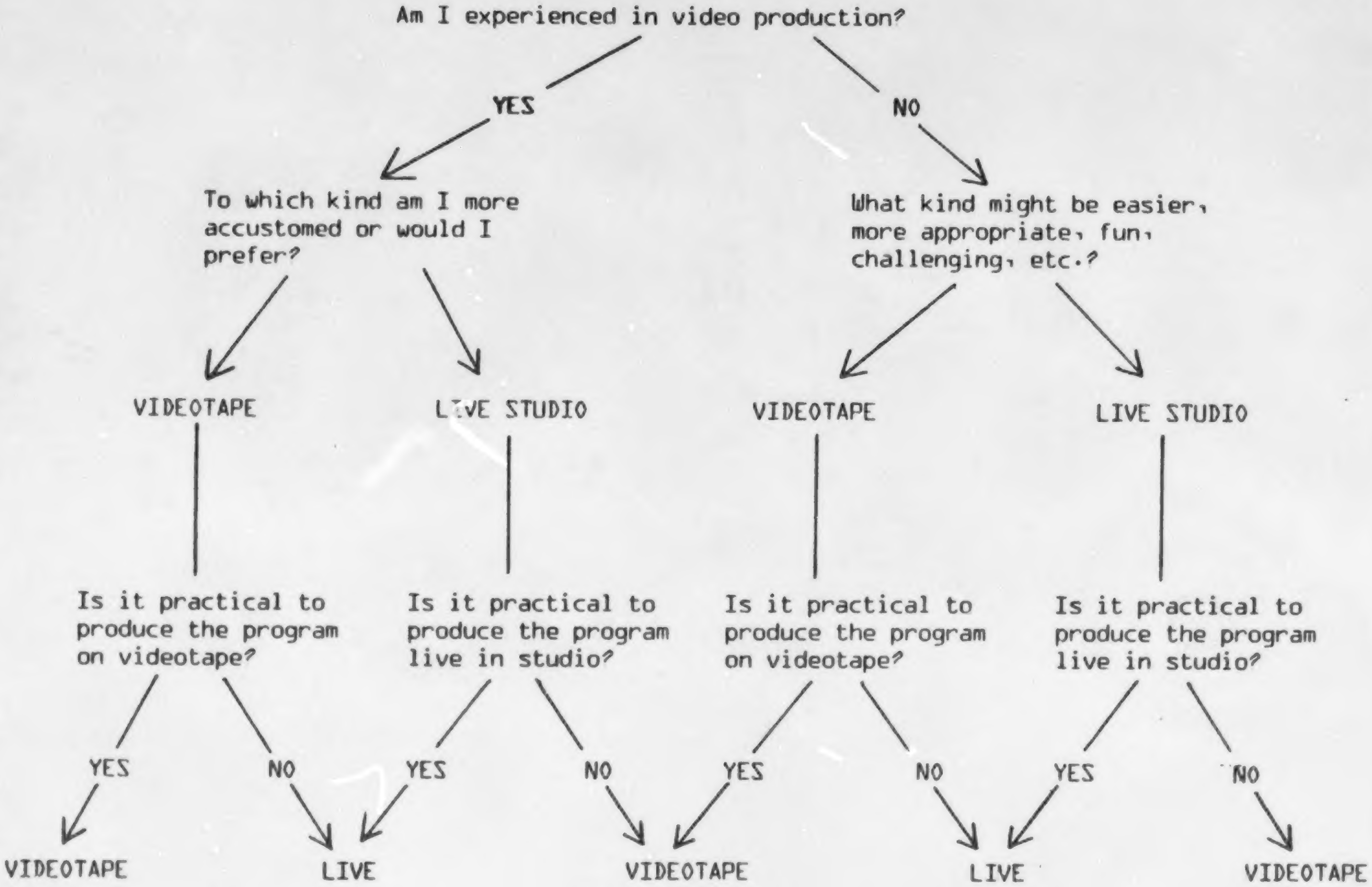

Am I experienced in video production?
YES
NO
To which kind am I more accustomed or would I prefer?
What kind might be easier, more appropriate, fun, challenging, etc.?
VIDEOTAPE
LIVE STUDIO
VIDEOTAPE
LIVE STUDIO
Is it practical to produce the program on videotape?
Is it practical to produce the program live in studio?
Is it practical to produce the program on videotape?
Is it practical to produce the program live in studio?
YES
NO
YES
NO
YES
NO
YES
NO
VIDEOTAPE
LIVE
VIDEOTAPE
LIVE
VIDEOTAPE

Figure 18. Decision-making process of producers

on volunteer participation. This model, shown in Figure 18, should assist in understanding the relationship between producers and the organizations from which they request assistance for their original program production needs.

After an individual has tentatively decided to produce a program, production expertise has a great deal to do with subsequent decisions. Here is the first point where an outside organization can assist by assessing a fledgling producer's expertise.

Once the preference is made between live studio or videotape, an individual must question the practicality of doing the program in that fashion. Does some inherent factor in the physical requirements or the the subject matter of the proposed program preclude it from being done in that way? Does some practical limitation such as time or money exist which would render that choice impractical? A Cablexpo-like structure should be prepared to answer all questions of this type, and draw on a variety of resources to do so.

Cablexpo was unable to identify producers early enough to provide a significant amount of assistance. The Presentation Proposal Form was a good opportunity for Cablexpo to know for sure who was presenting a program; however, most forms were returned too late to be used in the identification process.

Future planning at ISU

General recommendations Three elements should be considered in future planning. First, a comprehensive needs assessment should be conducted. Each department, service and organization on campus should be asked about problems, needs, facilities, and current and former use of the media.

Second, the relationships among the University, WOI-TV, Northwestern Bell and Heritage Cablevision should be carefully examined in relation to the needs assessment. Third, a proposal should then be made which explains the relationships and outlines a comprehensive broadband communication developmental plan for the University. With such a document, new avenues for supportive funding may be pursued, beneficial arrangements with the cable company may be initiated, and, most importantly, solutions to some difficult problems may reveal themselves. Two excellent examples of such proposals are those by the Spokane Public Telecommunications Center (Schaar, 1981) and Michigan State University (Coon, 1980).

A possible plan for ISU's five access channels Figure 19 graphically represents a possible utilization plan for the University's five cable television access channels. The plan may or may not be valid in light of a comprehensive needs assessment and analysis; however, it's conceptualization might prove useful.

Overall   Because the local cable company has designated one hyper-band channel (R) for the University's use, attempts should be made to reserve channels in the super- or mid-bands. (Lower frequency channels facilitate higher quality transmissions, especially in "worst-case" situations.) The hyperband might be used for less critical on-campus analog transmissions, and the lower freqency bands for critical on-campus data and those off-campus audience analog/digital transmissions which must retain their quality over long distances.

Regarding administrative control, each channel could be an independent entity, its day-to-day operations managed by a group made up of the user(s) of that channel. The entire campus system would then in turn be governed by a committee comprised, in part, by a representative from each of the five channels. Overall policy and adjudication of disputes would be the principal role of this parent governing body which, in turn, would be closely tied to the administrative policies of the Vice Presidents for Academic Affairs, and Information and Development.

It is assumed for this theoretical plan that the campus, including all resident housing, buildings and administrative offices (University, University services, college and departmental) eventually will be cabled.

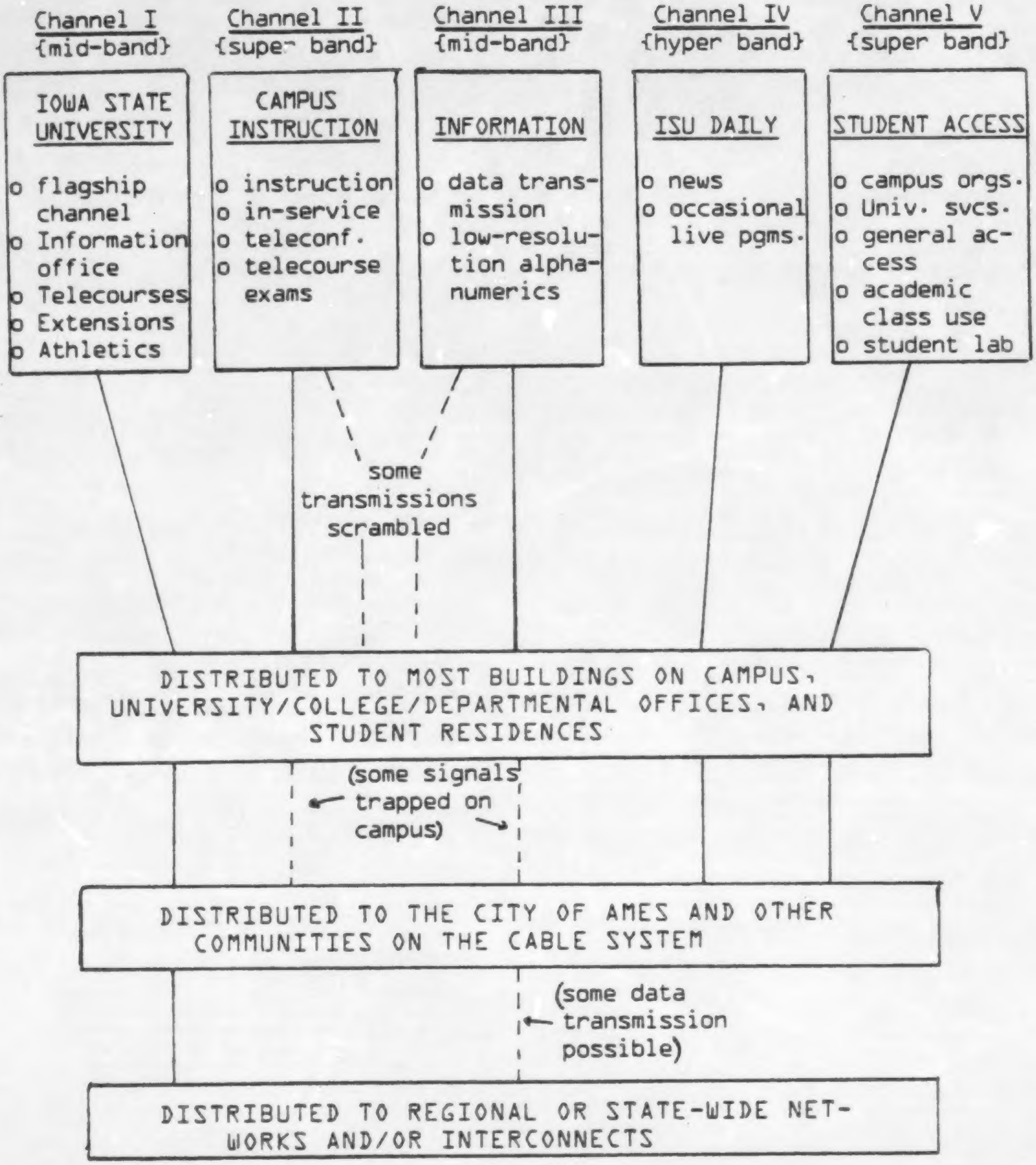

Channel I
{mid-band}
Channel II
{super band}
Channel III
{mid-band}
Channel IV
{hyper band}
Channel V
{super band}
IOWA STATE UNIVERSITY
o flagship channel
o Information office
o Telecourses
o Extensions
o Athletics
CAMPUS INSTRUCTION
o instruction
o in-service
o teleconf.
o telecourse exams
INFORMATION
o data transmission
o low-resolution alphanumerics
ISU DAILY
o news
o occasional live pgms.
STUDENT ACCESS
o campus orgs.
o Univ. svcs.
o general access
o academic class use
o student lab
some transmissions scrambled
DISTRIBUTED TO MOST BUILDINGS ON CAMPUS, UNIVERSITY/COLLEGE/DEPARTMENTAL OFFICES, AND STUDENT RESIDENCES
(some signals trapped on campus)
DISTRIBUTED TO THE CITY OF AMES AND OTHER COMMUNITIES ON THE CABLE SYSTEM
(some data transmission possible)
DISTRIBUTED TO REGIONAL OR STATE-WIDE NETWORKS AND/OR INTERCONNECTS

Figure 19. Possible plan for utilization of ISU's five access cable channels

Channel I "Iowa State University" This channel would be a flagship channel, officially representing the University to the community, region and state. Programming would be primarily general content, except where off-campus and continuing education courses are offered.

This channel could be operated by a wide group of users including the University and Cooperative Extensions, the Information office, ISU Telecourses, the Athletic Council, and other University services interested in off-campus audiences. Because the programming would be high quality, it could be made available to Heritage's Iowa Cable Network, and/or other telecommunications networks available to the State Board of Regents and the University.

Channel II "Campus Instruction" This channel would carry instructional programming via a regular schedule, on demand from professors, or a combination of both. The operation could be handled either by Media Resources or the Library. Whenever there was restricted or sensitive material, transmissions could be scrambled so that they could only received at authorized locations equipped with de-scrambling devices--otherwise, all programming would be accessible throughout the Ames community (unless the option is taken to trap signals on campus). The channel could also be used as a testing laboratory for off-campus and continuing education telecourse development. On campus, it could be utilized for in-service training or teleconferences, probably using the scrambling capability.

Channel III "Information" To the casual campus or community viewer, this channel would appear to be a normal twenty-four-hour-a-day alpha-numeric electronic billboard with a campus radio station for its sound; however, a closer examination would reveal that the picture has a bit less resolution and the sound a bit less fidelity than other alpha-numeric channels. The reason for this lessened quality is that less bandwidth is being utilized for analog signal while the rest, and greater part, of the channel's bandwidth is being utilized for its primary function: digital data transmission.

Although the campus already has at least four separate and distinct cable systems, only two are coaxial--capable of broadband transmission. One of these is inoperative. The other two are primarily twisted wire pairs leased from the telephone company. None of these systems has completed its eventual reach throughout the campus (the Computation Center and Physical Plant are still expanding their coverage), and all could benefit from additional bandwidth made available to them in this planned system.

With present technology and the skill available at the University, digital data sent over the same cable by dozens of other channels could be kept free of signal interference in all but the most critical applications. The channel could be the conduit for a wide variety of digital applications such as electronic mail, remote sensing and switching, research and computation, and rapid campus-wide message transmission. Trapping signals on campus would also be an option if pirating or unauthorized use of sensitive or classified material is a concern.

A data-users consortium made up of on-campus client organizations would have jurisdiction over this channel's bandwidth allocation, equipment standardization, frequency interference monitoring, and so on.

Channel IV "ISU Daily" This channel would be operated solely by the student newspaper. The Daily's interest in pursuing the electronic media was demonstrated during Cablexpo, and at the conclusion of the cablecast its leadership voiced interest in continuing the experiment. The channel could be programmed during the regular school year with continuously updated news and announcements. Limited classified advertising might also be considered to help defray the costs of the operation. Using microcomputers housed in the Daily's own pressroom, the channel could be distributed system-wide, and could use campus radio for sound. The newspaper would also have the option to occasionally originate live or taped programs from its offices whenever the need dictated.

Channel V "Student Access" This channel would be the primary outlet for student information and entertainment. Some form of consortium of academic departments, clubs and/or such services as Office of Student Life would be responsible for operating this channel. The signal would be broadcast throughout the local community--cable-system wide--and would feature student laboratory productions, productions and presentations by campus organizations (both live and on videotape), and regular programs such as campus news, weather and sports reporting. The facilities would be open and free to use by any student, faculty or staff member on campus following certification with the equipment and studio procedures.

ISU's media production systems In concordance with the findings of this study, it would be highly impractical to rely on the existing University systems, if left unchanged, for any increase in production demand brought about by access cable programming. One cost-effective alternative would be to encourage do-it-yourself access to facilities--either in videotape by increasing the quantity of portable production and post-production equipment available to everyone (in which case the producers would be trained in their proper use), or by encouraging live studio production (in which case a small permanent crew would be augmented with producer-supplied and previously-trained personnel). Live production has a number of very attractive advantages over videotape in access cable television production (Lukowsky, 1980).

The best-case scenario would provide for an increase both in equipment availability *and* production training; however, it is unlikely that capital outlay necessary to do this could be justified without better data. Judging from the response to Cablexpo's open invitation to produce programming, there is little doubt that there would be an ongoing demand if a permanent outlet, facilities and more equipment were made available. And there is also little doubt from the project's findings that the item most valued by a producer in his or her cable programming is production assistance from professional personnel.

The evidence of potential demand is augmented with evidence of an increase of video production activity on campus, and the increasing sophistication of the staff, faculty and students in media. These factors make the do-it-yourself route a logical alternative. Dr. Elaine McNally Jarchow, Assistant Professor in Secondary Education, is a good example of a faculty member who, along with a few students and graduate assistants, developed and produced a series of instructional videotapes after only a couple of short hands-on practice sessions conducted by professionals in the College of Education.

Summary This plan is completely theoretical. It was only suggested as a point of discussion. Even though it may appear to be a plausible developmental goal, a practical and logical utilization plan for the University access channels cannot start with a proposed end-product followed by forced implementation to that end. The arrangement that works best for ISU will be one which has evolved carefully and deliberately through a close analysis of needs, resources and strategic planning. Attention must be paid to how the innovation process, especially implementation, has been working and potentially can work. Only then can a plan be proposed, adopted and institutionalized.

BIBLIOGRAPHY

"Access '80." Videotaped proceedings of the 1980 NFLCP National Convention. Washington, DC: National Federation of Local Cable Programmers, Inc., 1980.

Ames, City of, Iowa. "Article XI. Cable Television Services," Ordinance No. 2661. 18 July 1978.

Ames Cable Committee, City of. Minutes of 12 May 1980 meeting.

Baer, W. Interactive Television: Prospects for Two-Way Services on Cable. Santa Monica, CA: The Rand Corporation, 1971.

Baukus, R. and Murray, G. Making Cable Work Project, Connecticut Commission for Higher Education. ERIC ED 129 277, 1978.

Beal, Dallas. "Faculty Response to the Use of Technology." In Technology and Education, pp. 115-25. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Beal, George M. "How Does Social Change Occur?" Iowa State University Cooperative Extension Service Reprint #RS-284, February, 1962.

Becket, Linda. The Cable College, San Diego State University. Interview, 12 November 1981.

Berkman, Dave. "Instructional Television: The Medium Whose Future Has Passed?" Educational Technology 16 (May 1976): 39-44.

Brickell, Henry M. and Aslanian, Carol B. "The Colleges and Business Competition." New York Times, 30 August 1981, sec. 12, p. 1.

Buske, Susan Miller. Pre-conference seminar, NFLCP/AECT Convention, Philadelphia, April, 1981. National Federation of Local Cable Programmers, Washington, DC.

"Cable Services Report 1979-1980." Washington, DC: National Cable Television Association, 1980.

"Cable TV and Higher Education." Videotaped teleconference for PBS member stations. U. S. Department of Education, Office of Telecommunications, 18 March 1981.

Carpenter-Huffman, P.; Hall, G. R. and Sumner, G. C. Change in Education. Cambridge, MA: Ballinger, 1974.

Charters, W. W. and Pellegrin, Roland. "Barriers to the Innovation Process. Four Case Studies of Differentiated Staffing." Educational Administrative Quarterly 9 (Septermber 1972): 3-4.

Chu, G. C. and Schramm, Wilbur. Learning from Television: What the Research Says. Washington, DC: National Association of Educational Broadcasters, 1967.

Cochran, Wendell. "Cable TV: A Revolution." Des Moines (Iowa) Sunday Register, 1 March 1981, sec. F, p. 1.

College of Education, Iowa State University. "College of Education Information Update." Ames, Iowa: Author, 1980. (Mimeographed.)

Coon, Donald W. "The Broadband Cable Network: Discussion and Recommendations." Michigan State University, Physical Plant Division. 1 December 1980. (Mimeographed.)

CPB/ASC Project. "Proposal Application Format/Guidlines." Washington, DC: Corporation for Public Broadcasting, 1981.

Curtis, John A. and Biedenback, Joseph M., editors. Educational Telecommunications Delivery Systems. Washington, DC: American Society for Engineering Education, 1979.

Davidorff, Brenda. Warner-Amex, Columbus, Ohio. Interview, 22 November 1980.

Deringer, Dorothy. "Computers/Software--More for Less." In Technology and Education, pp. 63-70. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Dirr, Peter J. "Uses of TV for Instruction 1976-1977: Final Report of the School Utilization Study." ERIC ED 180 015, 1979.

Dirr, Peter J. "Higher Education Uses of TV and Radio." In Technology and Education, pp. 103-7. Washington, DC: Educational Leadership, Inc., 1981.

Dirr, Peter. J. and Katz, Joan. *Higher Education Utilization Study Phase I: Final Report*. Washington, DC: National Center for Education Statistics, March 1981.

Dolce, Philip C. "The Consortium Approach: Preserving College Decision-Making." In *Technology and Education*, pp. 171-8. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Dranov, Paula; Moore, Louise and Hickey, Adrienne. *Video in the 80's: Emerging Uses for Television in Business, Education, Medicine and Government*. White Plains, NY: Knowledge Industry Publication, Inc., 1980.

Eastwood, L. F. *Motivations and Deterrents to Educational Use of Intelligent Video Disk Systems.* ERIC ED 157 516, 1978.

Epler Wood, Gregory. (Iowa State University) "Cablexpo: A Proposal Outlining ISU's First Use of Cable Television." 10 December 1980. (Photocopied).

Erdman, Ann. "Imaginative use of nonbroadcast technology directs social services to isolated audiences." *Development Communication Report 35* (September 1981): 1-5.

Evans, Richard and Leppmann, Peter K. *Resistance to Innovation in Higher Education*. San Francisco: Jossey-Bass, Inc., 1967.

Everett, John. "Courses by TV Reaffirm Value of Classroom." *New York Times*, 30 August 1981, sec. 12, p. 14.

F.C.C. v. Midwest Video Corporation. 99 S.Ct. 1435 (1979).

Fincher, Cameron. "The Failures of Innovation." *Research in Higher Education* 12 (September 1980): 373-6.

Finley, S. G. *Changes required in patterns of school organization, management, staffing, facilities and finance for technology to effectively improve instruction.* ERIC ED 039 722, 1970.

Fiske, Edward. "State Schools Now Moving to Selectivity." *New York Times*, 7 February 1982, sec. 1, p. 1.

Gartner, Alan and Riessman, Frank. "Strategies for Large-Scale Educational Reform." *Teacher's College Record* 75 (February 1974): 104-10.

Grant, Gerald and Riesman, David. *The Perpetual Dream: Reform and Experiment in the American College*. Chicago: University of Chicago Press, 1978.

Gross, Giacquinta and Bernstein, M. *Implementing Organizational Innovations: A Sociological Analysis of Planned Educational Change*. New York: Basic Books, 1971.

Gruebel, Jerold; Robison, W. Neal and Rutledge, Susan. "Intrastate Educational Telecommunication Systems: A National Survey." *Educational Technology* 21 (April 1981): 33-36.

Hardie, James. Director of ITV, Washington State University, Pullman, Washington. Interview, 14 November 1981.

Havelock, R. G. *The Change Agents Guide to Innovation in Education*, Englewood Cliffs, NJ: Educational Technology Publications, 1973.

Henry, Butch. Iowa State University Athletic Council, Ames, IA. Interview, 12 October 1980.

Hershfield, Allan. "Developing Technology to Enhance the Educational Process." In *Technology and Education*, pp. 1-15. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Heth, Jerald. "Turner pulls plug on TV at U of I." *Des Moines* (Iowa) *Register*. 22 February 1980, p. 1.

Hoffman, Joseph. University Union Television, Syracuse University. Interview, 14 November 1981.

House, Ernest. *The Politics of Educational Innovations*. Berkeley, CA: McCutchan, 1974.

Hufstedler, S. H. and Langenberg, D. N. "Science and Engineering Education for the 1980s and Beyond: Report to the President of the United States." Washington, DC: National Science Foundation, 1980.

Hull, Ronald E. "A Research and Development Adoption Model." *Educational Administration Quarterly* 10 (Fall 1974): 33-45.

The Iowa Stater. (Iowa State University Alumni Newsletter) June (1981): 4-9 passim.

ISU Daily. (Iowa State University newspaper) July 1979 to May 1981. Various issues.

Kent, Alvin. Media Resources Center, Iowa State University, Ames, IA. Interview, 18 July 1980.

Kent, Alvin. Media Resources Annual Report 1979-80. Ames, IA: Iowa State University, December, 1980.

Kent, Alvin. Media Resources Annual Report 1980-81. Ames, IA: Iowa State University, October, 1981.

Kolash, Joseph. Computation Center, Iowa State University. Ames, IA. Interview, 9 November 1981.

Kritek, William J. "Lessons from the Literature on Implementation." Education Administration Quarterly 12 (Fall 1976): 86-102.

Levien, R., editor. The Emerging Technology. New York: McGraw Hill, 1972.

Licklider, Roy E. "A Political Primer for Innovation." Improving College and University Teaching 29 (Winter 1981): 12-14.

Lipson, Joseph. "Changing Organizational Structures to Capitalize on Technology." In Technology and Education, pp. 29-34. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Lukowsky, Jeffrey. "Interaction: Live Cablecasting, Expanding the Role of Interactive Telecommunications." Community Television Review 3 (May 1980): 16-17.

Machlup, Fritz. The Production and Distribution of Information in the United States. Princeton, NJ: Princeton University, 1962.

Maeroff, Gene I. "Business is Cutting Into the Market: Becomes Competitor for Colleges Looking to Adult Enrollees." New York Times, 30 August 1981, sec. 12, p. 1.

Marcus, Stanley. "The Viewer's Verdict--So Far--on Cable TV." Panorama 1 (October 1980): 42-45.

Marquis, Chalmers. "Telecommuniations in Education: An Overview of the JCET Needs Assessment Project." Washington, DC: Joint Council on Educational Telecommunications, January 1980. (Mimeographed.)

Mason, Robert. "Organizational Demand for use of Cable Television in Corvallis, Oregon." Survey Research Center, Oregon state University, December, 1973.

McNeil, John D. Curriculum: A Comprehensive Introduction, New York: Little, Brown & Co., 1981.

Miller, Karen. Mayor, Reading, PA. Speech at the "Cities in Cable" NFLCP regional conference, Madison, WI, Fall, 1980. National Federation of Local Cable Programmers, Washington, DC.

Morrill (Justin S.) Act. U.S. Code. Chapter 130, 12 stat. 503. Signed 2 July 1862.

Muhlbach, Robert. Michigan State University, East Lansing, MI. Pre-conference seminar, NFLCP/AECT Convention, Philadelphia, April 1981.

Mullally, Donald. Possible Uses of Cable Television at University of Illinois for the Period 1973-1980. ERIC ED 081 215, 1973.

National Center for Educational Statistics. Digest of Educational Statistics 1980. Edited by W. Vance Grant and Leo J. Eiden. Washington, DC: U. S. Government Printing Office, 1980.

Nelson, Gerald. Journalism & Mass Communication, Iowa State University, Ames, IA. Lecture, 14 July 1980.

Ostendorf, Wayne. Administrative Data Processing Center, Iowa State University, Ames, IA. Interview, 9 November 1981.

Overturf, Bonnie. Office of Continuing Education, Iowa State University, Ames, IA. Interview 15 February 1982.

Parks, W. Robert. President, Iowa State University, Ames, IA. Speech, 29 August 1979.

Phillips, David. "Final Report to the Telecommunications Demonstration Program: on Pennarama." Pennsylvania State University, University Park, PA. 1 May 1981 (Photocopied.)

Pincus, John. "Incentives for Innovation in the Public Schools." Review of Educational Research 44 (January 1974): 113-44.

Pool, Ithiel de Sola. Preface to *Talking Back: Citizen Feedback and Cable Technology*, edited by I. de S. Pool. Cambridge, MA: MIT Press, 1973.

Porat, Marc Uri. "New Approaches to Development: Global Implications of the Information Society." *Journal of Communication* 28 (Winter 1978): 70-8.

Postman, Neil. "The First Curriculum: Comparing School and Television." *Phi Delta Kappan* 61 (November 1979): 163-8.

Reynolds, Gary. Physical Plant, Iowa State University, Ames, IA. Interview, 9 November 1981.

Reynolds, Larry. "Reducing the unanticipated consequences of change." *Administrators Notebook* 22 (December 1973): 1-3.

Rich, Terry. Manager, Heritage Cablevision, Ames, IA. Interview, 15 February 1982.

Roberts, J. M. *Implementation of Innovations in Educational Organization and Instruction.* ERIC ED 180 072, 1978.

Robinson, John P. "World Affairs Information and Mass Media Exposure." *Journalism Quarterly* 44 (January 1967): 23-31.

Rogers, Everett and Adhikarya, Ronny. "Diffusion of Innovation: an up-to-date review and commentary." In *Communication Yearbook #3*. Edited by Don Nimmo. New Brunswick, NJ: Transaction Books, 1979.

Rogers, Everett and Shoemaker, Floyd. *Communication of Innovations*. New York: The Free Press, 1971.

Ryan, Bryce and Gross, Neal. "The diffusion of hybrid corn in two Iowa communities." *Rural Sociology* 8 (March 1943): 15-24.

Sante, Michael. University of Missouri, Columbia, Missouri. Interview, 9 November 1981.

Schaar, Walter. "Managing the Development of the Public Telecommunications Center, Spokane, Washington." In *Technology and Education*, pp. 159-70. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Shiman, David and Lieberman, Ann. "A Non-Model for School Change." The Educational Forum 38 (May 1974): 441-5.

Sloan Commission. On the Cable: The Television of Abundance. New York: McGraw-Hill, 1971.

Smith, Ralph Lee. "A Telecommunications Primer for College Presidents." Planning for Higher Education 7 (February 1979): 7-13.

Stern, Carolyn and Keislar, Evan. "Teacher Attitudes and Attitude Change: A Research Review." Journal of Research and Development in Education 10 (February 1977): 74-5.

Tate, C., editor. Cable Television In the Cities: Community Control, Public Access, and Minority Ownership. Washington, DC: The Urban Institute, 1971.

"Telecommunication in Higher Education." Videotaped seminar. Cablexpo '81, Iowa State Unversity, Ames, IA, 10 May 81.

Television Digest. Washington, DC: Television Digest, Inc., 1 June 1981.

Tichenor, Phillip; Donohue, George; and Olien, Clarice. "Mass Media and the Knowledge Gap: A Hypothesis Reconsidered." Communication Research 2 (January 1975): 3-23.

Van Camp, C. Gregory. "Bridging the Chasm Between Telecommunication and Higher Education." In Technology and Education, pp. 233-40. Washington, DC: Institute for Educational Leadership, Inc., 1981.

Van Horn, Richard L. "A Day with a Live-In Campus Computer." New York Times, 8 November 1981, sec. 12, p. 70.

Wade, Gary. Media Coordinator, Iowa State Center, Iowa State University, Ames, IA. Interview, 18 November 1979.

Wing, Tom. Marketing Director, The Association for Higher Education of North Texas, Richardson, Texas. Interview, 12 November 1981.

Witherspoon, John P. and Norwood, Frank W. "Projected Satellite Capabilities: 1980-1985." Joint Council for Educational Telecommunications, Washington, DC, c1979. (Mimeo-graphed.)

Zucker, Andrew A. "Use of Telecommunication in Public Education during the 1980's." Journal of Educational Technology Systems 9 (1980-1981): 229-39.

APPENDIX A: SURVEY INSTRUMENTS

NON-ACADEMIC ENTITIES PRE-TEST QUESTIONNAIRE

Name of Entity:______________________________ Phone:____________________

Name of Respondent:__________________________ Phone:____________________

Respondent's Title or Position:______________________ Sex: M () F ()

DATE CALLED (O) OR (H) HOUR INFORMATION FOR CALL-BACKS

1.

2.

3.

Hello, my name is __________ and I'm helping in a University-wide thesis survey. Your response would be very helpful, and even though there is nothing personal or controversial in it, your answers will be held in strictest confidence. Would you mind spending about five minutes to answer a few questions?

1/ How long have you been in your present position with ________? ( ) MONTHS.

2/ What kind of media do you use most: The Daily, other newspapers, your own publication, outside newsletters, flyers, posters, radio or television?

THE DAILY ( ) OTHER NEWSPAPERS ( ) OWN PUBLICATION ( )

OUTSIDE NEWSLETTERS ( ) FLYERS ( ) POSTERS ( ) RADIO ( ) TV ( )

3/ How many times per month, on average, might you use this form of media?

( ) TIMES.

4/ For what purpose or purposes do you use the media: to advertise events, to publicize continuing services, for recruitment, to entertain, or for general information?

ADVERTISE EVENTS ( ) PUBLICIZE CONTINUING SERVICES ( ) RECRUITMENT ( )

TO ENTERTAIN ( ) GENERAL INFORMATION ( )

5/ Has your organization EVER used television for any of these kinds of things?

YES ( ) NO ( )

Okay, the final three questions are more general, and concern University Cable TV.

6/ How interested are you in seeing the University develop a cable television system: very interested, somewhat interested, or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

7/ Personally, how valuable do you see cable television to your organization's interests: very valuable, somewhat valuable, or of no value?

VERY VALUABLE ( ) SOMEWHAT VALUABLE ( ) OF NO VALUE ( )

8/ If your organization were occasionally asked to do a program for cable television, would you be very interested, somewhat interested or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

NON-ACADEMICS POST-TEST QUESTIONNAIRE

RESPONDENT'S NAME:____________________ Phone:__________

Name of Entity: ____________________ Phone:__________

Respondent's title or position________________ PARTICIPANT? Y () N ()

DATE CALLED HOUR INFORMATION FOR CALL-BACK

1.

2.

3.

(Appropriate Introduction)

(START HERE FOR NON-PARTICIPANTS)

1/ Were you aware of the cable television demonstration called CABLEXPO which occurred last week?

YES ( ) NO ( ) if 'no', skip to #6.

2/ How did you hear of it?

____

3/ Did you watch any of it?

YES ( ) NO ( )

4/ In the past three months, had anyone in your organization ever talked about doing a program for CABLEXPO?

YES ( ) NO ( ) if 'no', skip to #6.

5/ How far did the idea get, and briefly, why do you suppose it stopped there?

____

____

(START HERE FOR PARTICIPANTS)

6/ Here are three questions we've asked you before, but we'll ask you again just to see if you've changed your thinking since last time...

How interested are you in seeing the University develop a cable television system: very interested, somewhat interested, or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

7/ Personally, how valuable do you see cable television to your organization's interests: very valuable, somewhat valuable, or of no value?

VERY VALUABLE ( ) SOMEWHAT VALUABLE ( ) OF NO VALUE ( )

8/ If your organization were occasionally asked to do a program for cable television, would you be very interested, somewhat interested or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

(ASKED ON OF PARTICIPANTS)

9/ In your opinion, what is the biggest obstacle in doing a program for cable television?

____

____

10/ And what do you believe is the thing that helps most in carrying it to its successful completion?

____

____

FACULTY PRE-TEST QUESTIONNAIRE

Respondent's Name:______________________________Phone: (O)______________

Sex: MALE ( ) FEMALE ( ) (H)______________

	DATE CALLED	(O) OR (H)	HOUR	INFORMATION FOR CALL-BACKS
1.				
2.				
3.				

Hello, my name is ______ and I'm helping in a survey

It's very short and won't take more than five minutes of your time. Would you mind answering a few questions?

1/ For the first few questions, I'll just need a yes or no answer. Do you assign any form of videotape or television viewing to a class at least once/quarter?

YES ( ) NO ( )

2/ Have you ever produced any form of instructional media that was intended to be viewed on a television set?

YES ( ) NO ( )

3/ Do you have cable television in your home?

YES ( ) NO ( )

4/ How interested are you in seeing the University use cable television: very interested, somewhat interested, or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

5/ If you were asked to participate in cable programming, would you be very interested, somewhat interested, or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

6/ On a scale of one to ten, where would you place your feelings toward using television as a device to augment teaching?

1 2 3 4 5 6 7 8 9 10

7/ Again, on the same scale, how would you rate yourself in agreement with the following statement: "ISU will have a fully-operating cable television channel within the next five years"?

1 2 3 4 5 6 7 8 9 10

8/ May I have your age please? ( ) 9/ And about how many years have you been teaching? ( ).

FACULTY POST-TEST QUESTIONNAIRE

Respondent's Name: ______________________________ Phone: (O) ______________

(H) ______________

	DATE CALLED	HOUR	INFORMATION FOR CALL-BACKS
1.			
2.			
3.			

(Appropriate Introduction)

1/ Were you involved in any of the programming shown on CABLEXPO last week?

YES ( ) if 'yes', skip to Item #3 NO ( )

2/ Were you aware of the cable television demonstration that occurred last week?

YES ( ) NO ( ) if 'no' skip to #4

3/ Did you watch the University cable channel at least once while it was on last week?

YES ( ) NO ( )

4/ Have you installed cable television in your home since January?

YES ( ) NO ( )

We have four questions which we asked you before, but we'd like to see if you've changed your thinking in the last few months.

5/ How interested are you in seeing the University use cable television: very interested, somewhat interested, or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

6/ If you were asked to participate in cable programming, would you be: very interested, somewhat interested, or not interested?

VERY INTERESTED ( ) SOMEWHAT INTERESTED ( ) NOT INTERESTED ( )

7/ On a scale of one to ten, where would you place your feelings toward using television as a device to augment teaching?

1 2 3 4 5 6 7 8 9 10

8/ Again, on the same scale, how would you rate yourself in agreement with the following statement: "ISU will have a fully-operating cable television channel within the next five years?"

1 2 3 4 5 6 7 8 9 10

9/ In your opinion, what is the biggest obstacle in doing a program for cable television? ______________________________

____

10/ And what do you believe is the thing that helps most in carrying it to its successful completion?

____

APPENDIX B: CABLEXPO LITERATURE AND CORRESPONDENCE

CABLEXPO '81

The Iowa State University Cable Television Showcase

In cooperation with Veishea, the TCA Production Club, Heritage Cablevision and several academic departments, CABLEXPO proudly presents a week of educational and informational programming to cable television audiences beginning Wednesday, May 6, 1981.

CABLEXPO WILL FEATURE:

Veishea Events
News
University Information
Videotaped Instruction
Sneak Previews
Greek Activities
Interactive Programs
Computer Games
Club/Committee News
Campus Events
Slide/Tape Presentations
Student Access
Public Service Programs
Sports Coverage
Student Productions

BROADCASTING MAGAZINE reported in a recent issue that the cable television industry's profits were up 45% in 1980 to make it the fastest-growing major area in telecommunications. This kind of career-making potential will continue to grow for the next five to eight years as more and more of the nation's cities, towns and villages complete their cable systems.

GET EXPERIENCE IN CABLE TELEVISION ADMINISTRATION NOW! Read the committee descriptions on the other side and see where you fit in. If interested, contact Greg Epler (294-6840 or 233-2603) before January 28th. Academic credit is certainly a possibility.

OPERATIONS

PUBLICITY

- General publicity and Public Relations
- Weekly memo to staff and participants
- Press releases and/or spokesperson roles
- Cablecasting outreach

EQUIPMENT PROCUREMENT

- Systems checkout
- Signal transmission and automatic message equipment
- Production equipment
- Campus drops

CABLECAST

- Programming continuity
- Electronic Billboards Supervision
- Live/Delayed/Taped program scheduling
- Interactive program coordination

PROGRAMMING

Educational

PROGRAM DEVELOPMENT

- Research existing ISU program possibilities
- Contact potential participants among departments and individual faculty to encourage them to submit programming proposals
- Read proposals from potential participants and refer them to Production Advisory if necessary
- Investigate new approaches and applications of cable television to education

PRODUCTION ADVISORY

- Advises participants to insure timely execution of proposals
- Assists participants in arranging production staff & facilities
- Occasionally assists in production if feasible or necessary
- Works closely with Media Resources' Instructional Development function

Informational

PROGRAM DEVELOPMENT

- Research existing programming possibilities
- Contact potential participants among the non-academic campus organizations, clubs and university services to encourage them to submit programming proposals
- Read proposals from potential participants and refer them to Production Advisory if necessary
- Investigates new informational applications of cable television

PRODUCTION ADVISORY

- Advises participants to insure timely execution of proposals
- Assists participants in arranging production staff & facilities
- Occasionally assists in production if feasible or necessary
- Works closely with TCA Production Club advisory function

PROGRAM PUBLICITY ADVISORY

- Assists participants in notification techniques for their target audiences
- Advises in audience development within the concept of Narrowcasting
- Works with Veishea Promotions Committee

Cablexpo 81

ISU cable television showcase

THE CABLEXPO '81 NEWSLETTER
MARCH 19, 1981 VOL.1 NO. 1

What is Cablexpo '81?

If you maybe know a little something about cable television but still are a little skeptical about supporting or participating, this first newsletter edition is for you. If you are affiliated with a student group, academic department, or even an interested individual and have an event coming up in the next few weeks, START PREPARING RIGHT NOW TO GET IT ON VIDEOTAPE! Equipment is available to you and it's very easy to use -- we'll tell you how to do it. But first let's answer some of the most common and most difficult questions that we have been asked about CABLEXPO...

PLEASE GIVE ME THE WHO, WHAT, WHEN, WHERE AND HOW OF CABLEXPO '81. MAKE BELIEVE I KNOW NOTHING ABOUT CABLE TELEVISION.

Let's start first with Cablexpo. This will be what very well could be the most concentrated period of student-run cable programming in the nation. We will cablecast university-produced programs over channels Q and R of the local cable television system for six days, 24 hours a day, beginning Wednesday May 5, 1981.

Students, student groups, faculty, staff and administrators will contribute such varied programming as synchronized swimming, float building, music, dance, live call-in panel discussions, sports, documentary films, special pre-recorded lectures, variety shows, computer games and demonstrations, news and information.

The cablecast will be cooridinated and supervised chiefly by the Cablexpo staff and the TCA Production Club as part of their VEISHEA open house display. Each participating individual or group will be asked to supply at least one person who we will train to operate a camera or other piece of video equipment.

ISU's connection into the Heritage Cablevision system means that in effect, we will be operating two of our own television channels during Cablexpo week, and anyone at the University will have an oportunity to expound on virtually any topic, so long as it isn't obscene and meets certain technical requirements.

This opportunity for individual active participation in the television medium is called ACCESS and is the most exciting and unusual quality of cable tv. Previously, we all couldn't have our own program on tv because availible broadcast airwaves are very limited.

But now, because we can transmit more than 30 channels over one wire (called Coaxial Cable) and because tv equipment is now cheap enough for many people to buy, suddenly television has changed from a passive entertainment "boob tube" programmed by a few network executives, to an active participatory tool of the community.

Sure, the new cable tv won't be slick like WOI's network prime time programming, but then neither is the Ames Tribune as slick as the New York Times. But as we, collectively speaking for the university, gain experience using this tool, the more useful it will become. Cablexpo is the first big step toward that future.

WHAT IS HERITAGE CABLEVISION'S CONTRIBUTION TO ALL THIS? ISN'T CABLEXPO SIMPLY PROMOTING CABLE TELEVISION FOR HERITAGE?

Absolutely not! And let me explain why. Perhaps Heritage's subscribership will increase, but not that much due to Cablexpo. Only a year or two down the road if ISU begins regularly scheduled cablecasting over the cable system will subscribership increase due to any ISU programming contribution.

But to really understand why we shouldn't be concerned too much about Heritage's long term gains, we must look as cable tv as what it essentially is: a new technology.

Just like the telephone, radio, and many other technical achievements, cable television was invented and developed because of the profit motive. But this fact certainly hasn't stopped our society from deriving extraordinary benefits from all these things.

Even Thomas Edison, probably one of America's greatest inventors, didn't create the incandescent light bulb, for instance, so that even the poorest of families could have something better than candles illuminating their homes. He invented it because there was money in doing so!

Continued from Page One

Briefly, it is our responsibility to help mold the future of cable tv and to use this formative time as an opportunity to determine how this technology is utilized for the university's benefit.

Believe it or not, most cable systems around the United States have some civic responsibility in addition to their profit motives, and locally, Heritage is no exception. Although it realises the long term benefits to be gained from encouraging our utilization of the system, Heritage seems to be giving support to Cablexpo to a higher degree than seems justified considering the population of Ames and the fact that our subscriber rate is not as high as some communities of comparable size.

Both the local general manager, Terry Rich, and production manager Mike Miller, (both ISU graduates) have pledged support of Cablexpo and will be lending almost $100,000 worth of production and transmission equipment to Cablexpo in addition to any technical advice and support we need to get our channels "on the wire." Without sounding overly laudatory of the company, it is a point of fact that Heritage is going considerably beyond the requirements of their franchise contract to give their time and equipment to our effort.

As well they should, too, because Cablexpo is a model of cooperation: from the WOI engineering staff which is graciously trouble-shooting the campus cable circuit for us, to the hundreds of participants who are readying their presentations for cablecasting. Cablexpo is truly an example of a good symbiotic relationship between students, faculty, staff and the private commercial sector.

WHAT GOOD IS CABLEXPO IF THE STUDENTS DON'T HAVE CABLE TV?

True, the residence complexes are not wired for cable tv. And it is also true that the dorms and student apartments will only be wired if the students want it, and if the university administrators think it's a good idea. But the general statement that "the students don't have cable tv" is not entirely accurate, and it certainly is no argument against any university having a participatory cable tv system.

First of all, many ISU students who live off campus do have cable tv in their fraternity houses, homes or apartments, and secondly, specifically for Cablexpo, we will be providing viewing locations around campus to make it convenient for anyone without cable tv to see any program of their interest.

Having to go somewhere outside your home to see some event is not a new concept, and no more inconvenient than having to go to some auditorium for a class, special lecture, movie or closed-circuit televised sporting event.

The viewing locations with the highest liklihood of being established for Cablexpo are Exhibit Hall (across from Beyer Gym), Pearson, Carver, Computer Science, McKay, LeBaron and Hilton Auditorium. Others, such as the Library, Marston, the Armory and Coover will also have Cablexpo viewing areas if time and money permit. Unfortunately, USAC, although scheduled to get cable, will not be wired in time for Cablexpo.

Thirdly, we certainly can't ignore the thous ands of homes which are on the Ames cable system (this includes Nevada and Jefferson, too), nor the possibility that Heritage Des Moines might pick up our programming for their 20,000 plus subscribers. The public relations potential to friends, relatives, alumni and future ISU students is of enormous value not only to the University itself, but also its student groups.

In the last month or so since the Cablexpo staff has been contacting student organization pres idents, more than 40 of these organizations have begun making plan to participate. These forward thinking groups see the many benefits in experimenting with university cable tv. They will gain invaluable experience in do-it-yourself television production.

They will begin to build a visual archive of their group's membership and public information activities. They will, in many cases for the first time, have the opportunity to visually convey, either live on on tape, their activities to the entire Ames community. The public outreach experience that they will gain from Cablexpo will be carried well on into the future to the time when ISU goes full-time with its own cable television programming.

CARE TO PARTICIPATE?

If you, your organization or department would like to participate with programming on Cablexpo, call Greg Epler at 294-6840 to receive a copy of the Cablexpo Information/Proposal sheet

Cablexpo Wants You Behind The Scenes Too!

Like to help participants in the development of their programs? (Call Greg Epler, 4-6840) Or maybe live studio work is more to your liking? (Call Dann Veldkamp, 232-8290) If you like newsletter or publicity work, call Fritz Nordengren at 233-2233.

Access Guidelines

We've received a number of questions from participants regarding Cablexpo's requirements. Here are the major points, and for more detailed information, see the proposal sheet which is being mailed out this week.

HOW MUCH WILL IT COST?

Cablexpo programming time is free. If you want to videotape your presentation, you probably will be able to borrow a tape, but of course if you want to keep it, you will need to buy a videocassette in advance (about $20 from Media Resources).

Because advertising your program in the Daily and Program Guide is essential to notify your potential audience, we will be collecting $10 or less from each participant to go toward co-op advertising.

WHEN WILL OUR SHOW BE ON, AND HOW LONG SHOULD IT BE?

This is entirely up to you. Program length is not important in cable tv, as long as we know ahead of time for scheduling purposes. Also when it is cablecast is up to you. You may request any day or time on your proposal form. Deadline for proposal forms is APRIL 14.

WHAT ARE SOME OF THE POSSIBLE FORMATS FOR OUR PRESENTATION?

You can start videotaping right now anything which you think might be useful to you to cablecast during Cablexpo. This kind of program, taped and ready to show in its entirety before the first day of Cablexpo is called Pre-Recorded. If, however, you videotape something during that week, perhaps at some Veishea-related event, it will be called Delayed. If you want to do something live, in the Cablexpo studio, that is a Live format, and if you want to use our telephone lines during the show, it will be a Live-Interactive format.

If you want to feed information or news on a regular basis for Cablexpo's electronic billboards, we will call that Videotext. Of course, you can plan on any combination of the above formats for your presentation.

WHAT ABOUT EQUIPMENT AND ALL THE TECHNICAL THINGS WE HAVE TO KNOW ABOUT?

Cablexpo staff is going to help you along the way to get your show completed in time and so that it looks presentable; however, the responsibility for the design and production will be yours. Equipment is available to you on campus and if you don't know how to get it or how to use it, all you need do is ask us--either by phone or via the proposal form.

If you already know something about these things, we are requiring that the presentation, if Pre-Recorded or Delayed, be on 3/4" U-Matic cassette, with a good steady image and listenable sound quality. VHS formats, if shot well, can be transferred to 3/4" if necessary, but try to avoid this format.

Off Camera

Off Camera is a column about production. In each issue, Off Camera will talk about the productions being made for Cablexpo. It will also list productions being taped during the upcoming days.

If you want to learn about production, or watch someone else producing their program, this column will list names and phone numbers of the people doing productions. Feel free to give them a call to either watch or offer to help them out.

Already, the Cablexpo staff has heard of many productions being planned for use during our big event. There won't be room to list all the productions in Off Camera, but each program will be listed in the Cablexpo '81 programming guide. That guide is scheduled to be published May 1. However, we will try to mention as many programs as possible.

A GROUP OF TCA STUDENTS are using a class assignment for Cablexpo productions. They are part of Speech 442 X and their productions include a history of VEISHEA floats; an introduction to the Meterology department; an "on location" with one of Iowa State's film production classes; a look into the different martial arts; and an instructional production for the Zoology department.

REQUESTS TO SEE THE NAIADS show on cable have resulted in an agreement to video tape the performance for later cablecast during VEISHEA.

BOB LINDEMEYER from the Media Resource Center has promised Cablexpo that any of the films produced in recent years by the Film Production Unit that would be of interest to us will be copied onto video tape for our use. Two of these fimls are "Bicycle Saftey on the Road" and "Fields of Fuel: the Gasohol Debate."

PRODUCTIONS THIS WEEK include the TCA Production Club who is working on a nutrition program for Marshaltown Community College which will be cablecast on Marshaltown cable and for Cablexpo.

Editor's Note

By F.R. 'Fritz' Nordengren
Editor

Welcome aboard! This is the first issue of the Cablexpo '81 newsletter. This newsletter is being mailed to all the people who have expressed an interest in being part of a unique experiment.

Cablexpo is a chance to learn about cable television. With the help of this newsletter, we'll show each other where to find out more about cable, how to do productions and what the potential of cable television is at Iowa State.

We hope to publish the most current information about Cablexpo in this newsletter so we all know what is happening around campus concerning cable. To do this, we'll be compiling a new edition of this newsletter every ten days.

Finally, you can expect to use this newsletter as a reference source to learn more. We'll be constantly updating our bibliography as well as keeping you aware of the terms and jargon used in the television industry.

Cablexpo '81 Staff Members

As a Cablexpo participant, you will soon be assigned one of the following staff people to assist you in answering any questions you might have during the preparation of your program presentation. For now, feel free to call any of the following people.

Greg Epler GR ST6 Director	294-6840 233-2603
Fritz Nordengren JLMC 3 Publicity	233-2233
Mike Miller GR ST 6 Heritage Cablevision	292-5350
Mike Cummings JLMC 6 Secretary	292-5705 294-6003
Rich Robbins SP 3 Equipment Procurement	292-4871
Marge Fowler ENGL 2 Program Development	292-4364 294-8177
Pablo Celedon SP 5 Program Development	232-8964 294-6570
Tom White SP 2 Program Development	294-6140
Jamie Kaister ENGR 1 Program Development	292-9780
Dee Ann Cagwin JLMC 3 Program Development	292-6291
Lisa Gill JLMC 3 Program Development	292-0667
Trish Tierney SP 2 Program Development	292-6233
Bill Fish SP 3 TCA Production Club	292-9726
Paul Bunding JLMC Program Development	292-7353
Karen Gibson JLMC 4 Publicity	292-7764 294-6570
Lucinda Stephenson JLMC 4 Publicity	292-7764 294-6570
Phil Akin AER E 1 Cablecast	292-2161
Dan Veldkamp S & H 1 Cablecast	232-8290
Sharon Heithoff JLMC 4 Cablecast	292-4872

CABLEXPO '81
NORTH QUADRANGLE
IOWA STATE UNIVERSITY
AMES, IOWA 50011

PLEASE RUSH TO:

Cablexpo ⑧①

ISU cable television showcase

THE CABLEXPO '81 NEWSLETTER
APRIL 1, 1981 VOL. 1 NO. 2

CABLEXPO '81
NORTH QUADRANGLE
IOWA STATE UNIVERSITY
AMES, IOWA 50011

PLEASE RUSH TO:

Deadlines and Dates

Here are some of the important dates to mark on your Presentation Planning Calendar. Get your proposal in to us as soon as possible, and if you don't have this important form, or need more, call either Greg Epler at 4-6840 or Mike Cummings at 4-6003. We'll also try to help form your ideas into video reality for CABLEXPO -- ISU's first cable television event!

April 14 (Tuesday)---This is the last day for proposals to come to our office. Productions don't need to be completed, but we need its length, the date and time you want it shown and a brief description of the production.

April 22 (Wednesday)---This is the deadline for any copy changes for the program guide. Program guide will be published in May 5 Daily and May 1 Ames Tribune.

April 30 (Thursday)---Deadline for submission for videotaped program OR an outline of live programming if you plan to use the studio.

May 5 (Tuesday)---Cablexpo officially begins at 5:00 pm on channels Q and R of the Ames, Jefferson, Nevada cable system. After 11:00 pm both channels will display electronic billboarding.

May 6 (Wednesday)---Second day of programming beginning at noon and running until 11:00 pm. Live programming will be limited to 8:00pm--11:00 pm.

May 7 (Thursday)---Third day and first full day of programming. Taped productions begin at 9:00 am and live studio productions begin at noon.

May 8 (Friday)---Both live and taped productions from 9:00 am -- 11:00 pm.

May 9 (Saturday)---Live and taped productions from 9:00 am -- 11:00 pm.

May 10 (Sunday)---Final day from 1:00 pm -- 11:00 pm with live and taped productions and delayed broadcast productions of VEISHEA events.

A Cable Glossary

Because cable television may be new to many people receiving this newsletter, this list of terms is included so that reference can be made to it during the next few months.

ACCESS CHANNEL: An electronic "space" on the cable and on the converter dial reserved for personal lease, institutional use or public service use.

CAMPUS CABLE CIRCUIT: An existing cable line installed on campus during the late 1950's. Its head end is at WOI and the extent of its reach is being investigated.

HEAD END: In practical terms, this is the cable company facility (usually in the same location as its office, antenna or receiving tower, and studio) from which amplified television signals are fed into the main trunkline.

NARROWCASTING: Programming which appeals to any audience without regard to the size of that audience.

ORIGINATION CHANNEL: The access channel is only the electronic space reserved to transmit programming. The origination channel is the facility required to access the cable system at some remote location away from the head end.

U-Matic: Name of Sony-designed 3/4 inch video tape cassette used for television production.

VHS CASSETTE: "Video Home System" A ½" video tape cassette designed primarily for home use, but can be used for CABLEXPO applications.

VIDEOTEXT: Our term for electronic billboarding, or an electronic word display similar to a computer screen that lists up-coming events, late-breaking news or other pertinent information.

THE CABLEXPO T-SHIRTS ARE COMING!!

Be the first this spring with a quality t-shirt emblazoned with a colorful CABLEXPO logo, just like the newsletter masthead. Send a check for $6.50 made out to CABLEXPO before April 18th. For questions, call Tom White at 4-6140. Orders filled by 4/30/81.

NAME: ________________________

ADDRESS: ________________________

PHONE: ______________

SIZE: small__ medium__ large__ x-large__

Off Camera

The concept of interactive television might be new to you, but several Cablexpo producers have decided to create some interactive programming that is sure to spark interest.

In the planning stages is a series of interactive panel discussions on political issues.

POLITICAL SCIENCE 216, a class that each quarter examines issues in American politics is working on presenting panel discussions on several topics during the cablecast. Ideas for this series include using a live studio audience and using telephone call in participation.

IOWA STATE SPEAKS the telephone call-in show from KPGY campus radio will make its television debut on Cablexpo. Terry Rickert, program director for KPGY has proposed that the show originate from the Cablexpo studios in Exhibit Hall.

Other proposal forms came in to Cablexpo Central too late to be included in this newsletter; however, they will be mentioned next issue.

DO-IT-YOURSELF VIDEO LESSONS

For those student participants who are planning to use the GSB video equipment to record their CABLEXPO presentation, you must first attend a short training session.

Sign up at the Media Resources' Equipment Checkout Counter, first floor Pearson, for the April 1st, 3 Pm, or the April 7th, 2 Pm session. It's all free! (And easy!).

A Cable Television Bibliography

GOVERNMENT SOURCES

Communications Subcommittee
House of Representatives
B-333 Rayburn House Office Bldg.
Washington, D. C. 20515
202/225-9304

Complaints & Information
Compliance Division
Cable Television Bureau
Federal Communications Commission
Washington, D. C. 20554
202/632-9703

NONGOVERNMENT

Cable Television Information Ctr.
2100 M Street, N. W.
Washington, D. C. 20037
202/872-8888

Community Antenna Television Assn.
1825 K Street, N. W., Suite 720
Washington, D. C. 20006
202/659-2612

PERIODICALS

Broadcasting TK6570.A1.B7
Special reports on the cable-tv industry. Covers various areas of the industry.

Television Digest HE8690.T236 Reference
Broadcast fact book with information on the cable-tv industry.

Cable Libraries HE8700.7.c6c32
Current up-dates on whats happening in the cable business: technology, policy, education, and programing.

Educational Broadcasting
Contains cumulative index of previous articles appearing in this publication. Articles arranged by author and subject index with material on cable-tv.

BOOKS

Chin, Felix. Cable television; a comprehensive bibliography. Plenum '78.
HE8700.7 c6all c55

Bretz, Rudy. Producing Educational and Public Access Programs. New Jersey, '76. PN1992.75 B72

Mahony, Sheila. Keeping PACE with the new television. New York, '80.
HE8700.8 M345x

—more later...

Mike Cummings

NEXT ISSUE

- Expanded "Off Camera" column
- Cable TV Bibliography
- Up-date on campus cable system
- Cable Survey: Iowa Schools

Cablexpo 81

ISU cable television showcase

THE CABLEXPO '81 NEWSLETTER
APRIL 17, 1981 VOL. 1 NO. 3

A Word From the Director

Congratulations to the GSB Senate for their vote of confidence in the future of accessible television here at ISU! At just before midnight, Tuesday April 7, 1981, the Senate ended their usual marathon session by allocating $500 to CABLEXPO. Although this amount is only about a third of the projected budget, it will enable us to move ahead with new vigor.

Buoyed also by the overwhelming response from all sectors of the University (see OFF CAMERA), the CABLEXPO staff is rallying to assist participants in their special needs. Many of these participants are experiencing video production for the first time and are discovering,in a way they will never forget,that it doesn't happen magically. The sophisticated and smooth-running shows we see on commercial TV are enormously costly and time consuming. These first-time video producers begin to realize the various parameters which must be juggled as they move from the conception of an idea to the final realization of the presentation.

Welcome to the world of cable tv, where the trick is to do the most you can, the best way you know how, within the unpredictable variables of technical assistance, equipment availability and reliability, and downright stick-to-it-ivness. CABLEXPO is trying the best way it can to help as many people as possible, but remember that we are only basically an information clearinghouse and are not a production arm of the University.

Some folks have misunderstood CABLEXPO's role in several ways, but to reiterate, we are simply a catalyst and expediter for the development of ISU's newest asset, cable television. CABLEXPO is carefully documenting the producer's trials and tribulations, and if you are having difficulty, even to the point of total frustration, at least take comfort in the fact that your needs are being noted and will be used by the University in its assessment for future planning.

We hope that CABLEXPO will be a great learning tool to us all: both by direct participation and by watchits programming. One of the ways CABLEXPO hopes to enlighten us is via a live seminar on Sunday May 10th. The Committee on Lectures, supported by GSB, has granted CABLEXPO major funding to enable it to invite three noted personalities to address the practical application of the new communication technologies to higher education.

A short course on what the new cable tv is all about, the seminar will start out with a two-hour tape produced by the National Federation of Local Cable Programmers entitled "Access '80." This informative show was first cablecast over Home Box Office last summer and has been used all over the country as one of the best introductions to what local origination cable is all about.

Next will be about an hour-and a-half of talks and discussion by our three noted guests (Susan Miller Buske of the NFLCP in Washington, Robert Muhlbach, Manager of Instructional Television Programming at Michigan State University, and Larry Patten, Executive Director of IPBN, Des Moines), which will include Q & A period with the in-studio audience and via telephone for the home viewers.

Wrapping up the seminar will be a 90-minute satellite-transmitted teleconference with representatives from the Dallas-Ft. Worth area, the Pennarama program in Pennsylvania, and the Corporation for Public Broadcasting. Originally transmitted on March 18th, this show will round out this intensive period of information exchange.

Access and local origination based on the needs of a community is the key to the successful integration of a new video technology such as cable. ISU is no exception. We would like to continually remind everyone that this is true, and to drive home th point, we are setting aside some time for three days during CABLEXPO when you, either representing some group, or just yourself, will be able to get in front of the CABLEXPO cameras and say what's on your mind. The name of the show is ACCESS ISU, so be watching your mail and the Daily for further information on how to go about becoming, in Andy Warhol's words, famous for at least five minutes.

As you read this, we will have long passed the April 14th deadline for getting your proposal form to us. We hope you have done so. If you had talked to us before and we were expecting to hear from you, we might be able to make room for you. No promises, but don't be afraid to call Greg Epler at 4-6840 or Jamie Kaestner at 292-9780.

Otherwise, be aware of the April 22nd deadline to finalize your copy for the Program Guide and the payment of your fee (see the box elsewhere in the newsletter for a more detailed reminder).

Remember to make this program description read as glittering prose and alluring enough to attract the attention of a word-weary reader. This program guide will be the best opportunity you have to alert your potential viewers to the playdate and time of your presentation, so don't miss the opportunity. You may also wish to publicize the show just as you would any event--with flyers, direct mail, etc. We should have the schedule in good shape by April 25th, the day before it goes to typesetting, so check with us after then to make sure you don't publish the incorrect time and day. Many people asked for the same time, so we had to go by the first-come, first-served principle and therefore have already had to make some drastic changes.

If you are doing a live show, we tried to keep you at your requested time; however, if we did have to change your time, we will be calling you to see if it's okay to do so.

Be the first on your block to wear a CABLEXPO t-shirt. Just in time for spring, these quality attractive t-shirts are emblazoned with a logo on the left front and large across the back. They are $6.50 each, come in three sizes and are available in three ways: from any CABLEXPO staff member, with the coupon below, or at the CABLEXPO booth in the Memorial Union on Friday, May 1st.

NAME:

ADDRESS:

PHONE: AMOUNT ENCL:

SIZE: XL___LG___MED___SM___

Videotext Update

Plans to use micro-computers during Cablexpo are moving forward rapidly. These micro-computers will be used in the Videotext electronic bilboarding to keep viewers abreast of what is happening around campus during Veishea and Cablexpo.

The computers are being supplied by two Ames businesses. Jeff Meyer of Beacon electronics is supplying an Apple computer.

Red Varnum of Varnum Computer and Video will supply an Atari. With both of these machines, Cablexpo will provide information to viewers 24 hours a day for the entire 6 day cablecast.

Sue Schmitt of the Iowa State Daily staff os assembling a group of six reporters who will work exclusively on the cable edition of the Daily. This edition will consist of computer generated 'pages' of news. This will include events on campus, around Ames and possibly some state and national news.

The principle advantage of the electronic editions of the Daily will be the ease with which the news can be updated. During the busiest days, up to four editions will be cablecast.

Another interesting feature of this project is that viewers will some of the news printed in the Daily the night before the Daily itself is put in distribution boxes.

The computers will also provide updated information on the Cablexpo programming schedule and Vieshea events.

To find out more about programming opportunities using the Videotext electronic billboarding or to schedule some message you wish to have cablecast, contact Dan Veldkamp at 232-8290. These messages, similar to classified ads, will be transmitted during an appropriate time and day.

Viewing of the Videotext will be simultaneous with the programming channel at the on campus locations during Cablexpo.

In all scheduled viewing sites, two televisions will be operational to allow viewing of both Cablexpo channels.

Off Camera

By Frederick Nordengren

It isn't often that there is an opportunity to see as many poits of view and discussions of diverse topics. Cablexpo, and the many producers developing programming, is going to provide a fantastic chance to see the concerns and interests of Iowa State University.

THE SURVEY GROUP OF THE STATISTICS department is sponsoring a program of the Snedecorian Singers. Four statistics professors provide some informal coffee-time musical entertianment for their co-workers.

The ISU CHRISTIAN FELLOWSHIP is presenting "The End?" a presentation and portrayal of the ideas and theories surrounding the end of the world.

The ENVIRONMENTAL AWARENESS Club and Environmental Studies Program is sponsoring "Alternative Energy Home" a videotaped 'tour' and live discussion about several homes equiped with alternative energy sources. They hope to use the interactive facilities and have call-in question and answer session.

HYBIRD GRASS is providing 45 minutes of bluegrass music. That group is composed of ISU students and faculty and they feature both fidle and 5-string banjo music.

The BRUNNIER GALLERY is producing a 7 minute program on "The Brunnier Gallery Experience." It explores the purposes and wide range of activities at the Brunnier which is Iowa State's decorative arts museum and gallery.

The IOWA STATE CENTER is producing an 'on location' type tape on The Free Lance" the John Philip Sousa comic opera produced at C.Y. Stephens last year.

The DEPARTMENTS OF HISTORY and SECONDARY EDUCATION will present "History Day '81: Work and Leisure in History." This is State History Day, which brings together the outstanding projects and performances from 12 district competitions held in Iowa this spring for students in grades 6 - 12.

The CYCLONE SABERS production of "Fencing: An Introduction to the Sport" will discuss the three different weapons, their styles and rules.

The MUSCULAR DYSTROPHY ASSOCIATION produced a documentary on campus during the recent Dance Marathon. "It has begun" looks at the marathon from the viewpoints of three couples who danced in the most successful dance marathon held in the United States.

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The most daring proposal, however, seems to have originated from the Cablexpo staff who has proposed "Access ISU" a chance to do what ever you want. ANYTHING! Mel Crippen and Tim Berry will host this live production which will be cablecast three times during Cablexpo. This is your chance to show off your singing, political thinking, dancing, gymnastic ability, send a birthday greeting...get the idea. Within the realms of taste (good taste, hopefully) this is your chance to be on your show.

State Cable Programs

In the years to come Iowa's three state funded universities will be playing catch-up to at least two other colleges in Iowa which have already developed instructional and educational cable programing on their campuses.

The two colleges which produce cable programing regularly are Drake University, a private college, and Kirkwood Community College in Cedar Rapids.

This is not to say that the three state colleges don't have the opportunity or capability for university cable programing, because they do.

Iowa State University, the University of Iowa and the University of Northern Iowa all have university cable channel(s) allocated them by various cable companies for their exclusive use. But at this time, none of the state colleges are airing educational or instructional programing with any consistency.

The University of Iowa has a group of marketing students who find sponsors to fund local programing at the college's union pub every "beer night." In return, the students plug or advertise for the sponsors. A member of the student organization, who will remain anonymous in this article, said he believes the university's administration doesn't want to use the cable channels. He said they have a certain period of time to use the channel or lose it. And at this point, nobody else is using it, he said.

State Cable Con't

At Iowa State University the picture is beginning to take shape, in the form of Cablexpo, which will only last seven days. If the pieces aren't picked up by interested sources, ISU's university cable channel(s) could soon be, in effect, left static. On the other hand, if everything is kept intact after Cablexpo, ISU could be one of the leaders in educational and instructional programing among the three state colleges.

Another possible leader in university cable programing is the University of Northern Iowa. Beginning this fall UNI will start airing programs that they already have on their shelfs. Joe Marchesani, coordinator of TV and Radio at UNI said they have taken a gamble and formed an access-university channel consortium consisting of educational, municipal, and community programing. Marchesani said most of their programing will be campus oriented, rather than community oriented because of the lack of people to do the productions. UNI has outstanding facilities for video broadcasting, 6 studios, 50 portable cameras, and over 100 tv's. With their close circuit system, Marchesani said they can send out 50 programs from their master control to 75 class rooms. UNI is in a unique position of having excellant video facilities, but not enough people to use the university cable system to full capacity. Marchesani said they hope to keep something on the air at all times by including municipal and community programing in thier system.

With just the opposite program plan in mind--programing for the community instead of the campus--Drake University, on the air since 1976, puts out 40 to 50 hours of programing a week, monday through friday.

The Drake channel is shared by the Des Moines Area Consortium for Higher Education, which is made up of the Des Moines Community College, Grandview College and Drake. Drake produces the bulk of the programing and the other two colleges air as much as they can, which varies at times. The Des Moines Community College airs replays of credit courses played on IPBN. Grandview College produces a weekly interview show. Drake's students produce the following: New views--campus, local and national news, Wild Celery--a fine arts program, Game Plan--a sports program, Sounder--a public affairs program, and Tune-up-- an exercise show.

Don Moon, director of the system at Drake, said that it is a public relations venture for Drake and a broadcast laboratory experience for the students at Drake every time the cable system is put into operation.

In Cedar Rapids, Kirkwood Community College may soon be the only leader in Iowa in the development of educational and instructional broadcasting services by implementing and operating, for the first time in the United States, the combination of three broadcast technologies: Cable-TV, Instructional TV Fixed Services and two-way Micro Wave broadcast communications.

This innovation is all in the hands of the Reagan Administration's proposed budget cuts. The National Telecommunication Information Administration, which is targeted for large cutbacks and even termination, is currently reviewing Kirkwood's three year proposal for a total of $1.2 million dollars.

Up to date, Kirkwood has received partial funding of the grant from NTIA, and paid some themselves, to pay for a control complex, one working two-way micro wave communication system, linking Kirkwood and Iowa City, with three more micro wave units being constructed; a four-channel instructional tv fixed service system--transmission towers send broadcast signals to a receiving antenna within a 25 mile radius--with this system there is only two-way audio capability; and beginning May 7th Kirkwood's campus will be feeding the cable company programs via micro wave.

If the rest of the grant comes through, Kirkwood Telecommunication Services plans to interconnect cable, close circuit, ITFS, and mircro wave to serve seven counties in Iowa.

Currently on the Kirkwood campus a demand access system feeds 36 channels to every location on campus and a student can view any tape from a collection of 4000 instructional programs.

Merrill Crawford, Director of Media Services, said that when the whole system is hooked-up at its specified locations,in various counties, that there exists the possibility of creating a state-wide community college network.

Campus Cable Circuit Completed

By Paul Bundy

As we've told you so many times in the past, Cablexpo '81 is designed to demonstrate the virtues of student produced cable programming to the students and faculty of Iowa State University and to the greater Ames community.

But if you're really perceptive, you may have already spotted an apparant flaw.

Due in whole to the cooperation Cablexpo has received from Heritage Cablevision, WOI TV and the university, Cablexpo will have at least four on-campus viewing sights where everyone visiting Iowa State can see what we're doing to establish cable on the campus.

Three of these sights will be operating at all hours of Cablexpo programming. These are the main lobby of the Memorial Union, the basement of the Library, and the lounge of Exhibit Hall, (the TCA building). During Veishea display hours, 8:00 am to 5:00 pm on Friday and Saturday, a fourth viewing site will be in MacKay Auditorium (room 117).

In case of rain, there will be a viewing location established in the Armory.

There will be two televisions at each viewing site. One will be tuned to the Videotext electronic billboarding channel, the other to the Cablexpo programming.

All of the sites will be connected together by a simple cable circuit revitalized by Cablexpo. The circuit was built in the 1950's to provide ISU instructors with videotaped programming on demand. It's origination point was at WOI.

The system was strictly a one way system; that is, the instructors had no way to communicate with the people at WOI. The system was also used to cover ISU events including concerts at the campanile.

During the 1960's, though, the system gradually was

During the 1960's, thought, the system received less use and eventually programming was stopped.

Thanks to the efforts of WOI and Heritage Cablevision, this long neglected system will be put to use to distribute Cablexpo programming.

Particular notice of appreciation should go to Terry Olson and Mike Miller of Heritage and Dale Larson, assistant cheif engineer at WOI. The cablecast sommittee is also grateful to Heritage for providing coaxial cable for the circuit, along with the necessary equipment and the Media Resource Center at ISU for providing the televisions to be used at the viewing sites.

ATTENTION CABLEXPO PRESENTERS!! PAY YOUR PROGRAM FEE BY APRIL 22ND!!

Your Program Guide publicity will look something like this:

4:15 ACCESS ISU (Information/Entertainment)
Guest Host Tim Berry today talks to a fellow who eats worms and a chess marathoner who played to beat the world's record. (Sponsored by Cablexpo Program Committee) 45 minutes.

This will appear in the May 5th edition of the ISU Daily, and in a more abbreviated version in the Ames Tribune television section.

Do not underestimate the importance of this "TV Guide" publicity!

IT IS ESSENTIAL THAT YOUR PUBLICITY FEE BE PAID BY THE APRIL 22 DEADLINE! No publicity for any program will appear without this fee paid in advance, because unfortunately the CABLEXPO budget will not allow for subsidizing free publicity.

There are two ways to pay: either by cash or check (made out to CABLEXPO), or, if you have a University account, by giving us a paper with the following statement:

WE AUTHORIZE A CORRECTION VOUCHER IN THE AMOUNT OF $________ FROM OUR ACCOUNT NUMBER ______________ TO CABLEXPO. SIGNED: ______________(authorized signature).

DELIVER VIA CAMPUS MAIL TO: CABLEXPO, NORTH QUAD BLDG. OR IN PERSON TO GREG EPLER, 4-6840.

Cable Television Periodicals

Cablecast
Paul Kagan Associates, Inc.
2683 Carmel Rancho Lane
Carmel, California 93923
Bi-weekly newsletter of CTV investment and finance.

Cable Communications Magazine
Pryde Publications
165 Bloor Street East, Suite 503
Toronto, Ontario, M4W 1C8
Monthly magazine of Canadian CTV news.

CHANNELS of Communication
Media Commentary Council
Box 2001
Mahopac, NY 10541
Bi-monthly magazine edited by Les Brown of New York Times.

Cablelibraries
C. S. Tepfer Publiching Co. Inc.
51 Sugar Hollow Road
Danbury, Connecticut 96810
Monthly newsletter

Cable TV Program Magazine
Graphics Printing & Publishing
5211 N. High Street
Columbus, Ohio 43214
Bi-weekly.

Cablevision
Titsch Publishing Co.
Box 4305
1139 Delaware Plaza
Denver, Colorado 80207
Bi-weekly news and feature magazine.

CATJ (Community Antenna Television Journal)
Community Antenna Television Association
4209 NW 23rd St. Suite 106
Oklahoma City, Oklahoma 73107
Monthly

Pay TV Newsletter
Paul Kagan Associates, Inc.
26836 Carmel Rancho Lane
Carmel, California 93923
Bi-weekly news and analysis.

TVC Magazine
Cardiff Publishing Co.
3900 S. Wadsworth Blvd.
Suite 560
Denver, Colorado 80235
Cable operator's trade publication, weekly.

VideoNews
Phillips Publishing Co.
8401 Connecticut Ave., NW
Washington, DC 20015
Bi-weekly newsletter of management, technology & regulation of cable TV and consumer electronics.

Cable TV Regulation
Paul Kagan Associates, Inc.
26836 Carmel Rancho Lane
Carmel, CAlifornia 93923
Twice monthly.

CPB Report
Corp. for Public Broadcasting
Office of Public Affairs
1111 16th Street, NW
Washington, DC 20036
Bi-weekly newsletter on public broadcasting activities.

Educational and Industrial TV
C.S. Tepfer Publishing Co. Inc.
51 Sugar Hollow Road
Danbury, Connecticut 06810
Monthly magazine.

ETV Newsletter
C.S. Tepfer Publishing Co.
(see above)
Bi-weekly newsletter specializing in educational television.

Public Telecommunications Review
National Assn. of Educ. Broadcasters
1346 Connecticut Ave., NW
Washington, DC 20036
Bi-monthly magazine of research reporting and opinion about public broadcasting and related fields.

Community Television Review
National Federation of Local Cable Programmers
3700 Far Hills Ave.
Kettering, Ohio 45429
Quarterly magazine.

Access
National Citizens Committee for Broadcasting
1530 P Street, NW
Washington, DC 20005
Bi-weekly grassroots, activist magazine.

PLEASE RUSH TO:

CABLEXPO '81
NORTH QUADRANGLE
IOWA STATE UNIVERSITY
AMES. IOWA 50011

CABLEXPO '81
Quadrangle North Building
Iowa State University
Ames, IA 50011

Participant Information Sheet
March 20, 1981
Greg Epler, Director
294-6840

Dear Student Participant:

It's a pleasure to be able to invite you to submit your programming to the first major use of ISU's cable television channels! In this brief letter I hopw to flesh out some of the details of the questions you might have after reading the first CABLEXPO newsletter and the attached Presentation Proposal Form. Please understand that our limited resources prohibit us from actually assisting you on your production on an individual basis right now, but if after reading this sheet and examining the Proposal Form you still have questions, do not hesitate to call me or any of the CABLEXPO Program Development staff as listed in the newsletter. Notice that the sooner you get this form back to us, the sooner we can assign a Program Developer to you.

The purpose of the Proposal Form is three-fold: first, to enable us to assess needs for our scheduling of equipment, studio time and people power; secondly, to give us copy for the Program Guide to be printed in the ISU Daily and Ames Tribune (This advertising is important to you so that you have a better chance of reaching your target audience. If you have the desire and the resources to do further publicity, we urge you to do so. CABLEXPO is only a one-time event, so you can't rely on a "regular viewership" to tune in); thirdly, we want to familiarize you with the deadlines and rules and regulations governing the event.

Logistically, here are some major points:

- There is no time limit on program length, but we will begin each new program on quarter-hours.
- If you already have a presentation in some other format than 3/4" U-Matic Videocassette, you will need to call us if you don't know how to transfer it over to that format.
- If you have ANY kind of event coming up in the next month, you can get it on videotape. Here is what you will have to do. Unless you know someone with videotape gear, or can arrange through us to have a TCA production student do it for you, the only option you have is to use the GSB-owned equipment to do-it-yourself. It isn't that difficult, but someone from your organization will need to attend one of the following 1½ hour sessions to get a User-card issued to them: March 24 at 3:30 PM; April 1 at 3 PM; or April 7 at 2 PM. They are conducted by Media Resources in Pearson Hall and you must sign up beforehand, in person, at the Equipment Checkout counter. The catch here is that there is only a limited amount of equipment, and a limited amount of time until CABLEXPO, so to be forewarned is to be prepared.
- If you are planning a Live Studio presentation, we will need to advise you in greater detail as to the limitations of that format. In Live format, use can be made of the two telephone lines. The caller's voice will be broadcast, so you must supply an assistant to screen calls. Call us for more details.

LATE FLASH!
YOU CAN NOW
USE VHS FORMAT!

Mark those deadlines on your calendar and good luck!

Greg

CABLEXPO '81
Quadrangle North Building
Iowa State University
Ames, IA 50011

Participant Information Sheet
March 20, 1981
Greg Epler, Director
294-6840

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Logistically, here are some major points:

- There is no time limit on program length, but we will begin each new program on quarter-hours.
- If you need to do some preparation with your videotape(s), note that we will need to be in physical possession of the tape by April 30th unless special arrangements are made.
- If your presentation is in a medium other than videotape, it must be transferred to 3/4" U-Matic Cassette. Contact Media Resources immediately to see if arrangements can be made to do so.
- If you are planning a Live Studio presentation, we will need to advise you in greater detail as to the limitations of that format. Especially if you intend to use another media type during the presentation such as an overhead or videotape, we will need to know that. Also in this format, you will need to supply at least one warm body who we will quickly train to help crew the production.
- Use can be made of the two telephone lines coming into the studio. The caller's voice will be amplified and directed into the audio of the channel. You should plan to have an assistant screen calls.
- If you are only going to be supplying material to the Videotext, or electronic billboard channel, simply indicate this after TITLE and describe briefly the type of material you will be supplying on a daily basis after DESCRIPTION. You will only owe one $5 Program Guide fee, and we will soon contact you regarding logistics.

Remember that you will have to fill out a separate Proposal Form for each program you submit, and mark those deadlines down on your calendar. Good Luck!

Greg

CABLEXPO Presentation Proposal Form

Mail by Monday, April 13 to
CABLEXPO
Quadrangle North
Ames, IA 50011

PRINT OR TYPE ALL ENTRIES!

One of these forms must be completed for every presentation you wish to cablecast. Refer to the Participant's Information Sheet for detaile explanation. If you need more forms, copy this one or call Mike Cummings (4-6003) or Gre Epler (4-6840).

Name of SPONSOR: ______________________

INDIVIDUAL Responsible for Production: ______________________

ADDRESS: ______________________
(Use Campus Mail address, if possible)

PHONE: ______________

Brief, Descriptive TITLE: ______________________
(For our Program Guide) (For example: "Cooking for Kids", "El Salvador: Involvement?")

Approximate Length: __________. Would you like it "re-played"? NO () YES ().

REQUESTED PLAY DATES(s) AND TIME(s)

Tuesday, May 5th	5 PM to 11 PM	______________
Wednesday, May 6th	Noon to 11 PM	______________
Thursday, May 7th	9 AM to 11 PM	______________
Friday, May 8th	9 AM to 11 PM	______________
Saturday, May 9th	9 AM to 11 PM	______________
Sunday, May 10th	1 PM to 11 PM	______________

Rules & Directions

1. Write in the time you wish your program to play and, if desired, to re-play. (Sorry, only one replay).
2. Requests for specific times will be considered in the order that they are received.
3. Requested times will be honored subject to studio, equipment or staff availability; however, scheduling will be finalized by April 28th. Special arrangements will be made for Live VIP interviews or other presentations which have limited time-schedule flexibility.
4. To help defray the essential expense of a Program Guide, we must charge a nominal fee of $5 for the first showing and an additional $2 for a re-play This fee may be waived in cases of extreme hardship.

"TV Guide" DESCRIPTION of Content or Intent : ______________________

(Limited to 25 words. Copy may be changed until April 22, 1981) ______________________

____

PRODUCTION TECHNIQUE:
(check applicable statement or statements)

The videotape has already been done for us.....()
We've already done the videotaping ourselves......()
We are going to do it ourselves......()
We know someone who will do it for us.....()
We are going to borrow GSB equipment.......()
We are going to use equipment from some other source.....()
We will be live and will supply at least one person to help crew....(

FORMAT: (see info sheet for explanation)

PRE-RECORDED ......( ) DELAYED ..... ( ) LIVE STUDIO ..... ( )
LIVE with VIDEOTAPE ..... ( ) VIDEOTEXT only ..... ( ) INTERACTIVE (telephone) .....( )

TYPE:

Lecturer/Speaker	( )	Panel/Debate/Discussion	( )
Instructional	( )	Orientation/Promotion	( )
Demonstration	( )	Performing Arts/Entertainment	( )
Interview	( )	Athletic Event	( )
News/Information	( )	Documentary	( )

Note: Deadline to deliver your videotape to us is Thursday, April 30th if you are doing a Pre-Recorded or Live with Videotape format presentation.

Please read the following and sign below:

AS THE PRODUCER of an ORIGINAL PROGRAM I have, or will before it's cablecast, obtain permission from any professional speakers or performers which are included in my presentation,

-or-

AS THE PRESENTER of a PROGRAM PRODUCED BY OTHERS, I have obtained or will obtain permission from them to cablecast it.

I understand that CABLEXPO reserves the right, if necessary, to re-schedule or cancel any presentation.

I have read and understand all deadlines, rules and procedures as outlined on this form.

I have enclosed, or will deliver to the CABLEXPO office before April 22, 1981, the Program Guide fee. The fee will not be refundable after that date.

(signed)________________________________ (date)____________________

(printed)________________________________

Make a personal copy of this form for your records and return it before April 13, 1981 to: CABLEXPO, Quadrangle North Building, Ames, IA 50011 (If on campus, use Campus Mail). A Program Developer will be assigned to assist you and answer questions.

CABLEXPO
North Quadrangle Bldg.
Greg Epler, Director
April 3, 1981

TO:
Keith Ketchum, WOI
Dale Larsen, WOI
Mike Miller, TCA, Exhibit Hall
Terry Rich, Heritage Cablevision
Bill Whitman, Physical Plant
Don Sprague, TCA, Exhibit Hall
Don Rieck, MRC-Pearson Hall
Matt Darbyshire, MRC-Pearson Hall
Roger Ferris, Memorial Union
Russ Skei, Memorial Union
Dave Olson, Scheman Bldg.
Steve Harder, Scheman Bldg.
Mary Tharp, Veishea-Memorial Union
Paul Gherman, Library
Roger Volker, IRC-North Quad.

Gentlemen:

Here is a summary of the most recent findings and discussions among the principals concerned with the campus coaxial cable circuit and the design for its use during CABLEXPO. This letter should bring everyone up to date and will convey our wishes in as detailed a fashion as possible so that cooperative efforts can continue as effectively as possible.

The single most important concern by CABLEXPO is that viewing stations for our two channels be provided at the most logical, feasible and fruitful locations as possible. Of course the first determiner as to possible locations is determined by the extent of the WOI-designed and installed coaxial cable circuit. The second determiner is their importance in meeting the viewing needs for the campus and her visitors during the Veishea weekend. The third determiner is whether or not there will be an amount of pedestrian traffic to warrent any extra effort to install the viewing station.

These combinations of factors have pointed to the following locations:

Main Auditorium, MacKay Hall
The Armory
Main Lounge, Memorial Union
Hallway at Library Instruction, Library

The following locations have capability for video hookup; however, they will not be considered unless representatives from them take responsibility for the installation:

Computation Center
Electrical Engineering Bldg.
Marston Hall
Pearson Hall
Carver Hall
The Campanile

Not mentioned in the first group, but essential for the operation of the entire system, is the temporary hookup between TCA Exhibit Hall and Marston Hall cable terminus which will allow the Heritage Cablevision signal to enter the campus circuit. One of ISU's three access points into the Heritage system is at TCA Exhibit Hall (the other two are at C.Y. Stevens Auditorium and Hilton Coliseum) and it is from there that CABLEXPO will transmit its live and videotaped presentations and WOI will receive the downstream broadband cable signals.

Mike Miller stated that Heritage will supply cable enough for him, with the assistance of Heritage's Terry Olson, permission of Bill Whitman, and supervision of Dale Larson, to run overhead cable between Exhibit Hall and Marston Hall.

Similar special cable line will be necessary to actualize the viewing area planned for the basement of the Library, in the hallway next to Library Instruction. Two options have been articulated thus far, both involving the access to the Computation Center terminus and the cooperation of the Library Addition construction crew: overhead from the Comp Center and into the Library through some external opening; underground through conduit which enters the building under the present construction. Paul Gherman of the Library administration stated that the construction crew is very friendly and would be amenable to requests for assistance. The greater problem of course occurs before that and will require some imagination and cooperation on our part to find a workable solution, if one exists. Both CABLEXPO and the Library believes a viewing area in the Library would be of logical importance and fitting with the spirit and purposes of the event, and therefore we believe it necessary to pursue this avenue even though it will require extra effort of everyone.

Mary Tharp, Space and Schedule Coordinator for Veishea, has said that quite a number of displays have been scheduled for the Main Auditorium at MacKay Hall. If continuity exists between WOI and this site (which most believe it does), we wish to have a viewing area there for the two Display and Open House days of Friday, May 8th and Saturday, May 9th. Similarly, the Armory would be in operation only for those two days, but only if it rains will it be used to house displays. Therefore, we need this location checked out in advance for the possibility that it might be a high traffic location.

The last location, the Main Lounge at Memorial Union, will, like the Library, be in operation for 24-hours a day beginning at the official open of CABLEXPO, 5PM on May 5th. Permission has been obtained from Roger Ferris to establish a viewing site in the lounge adjacent to the Union's front desk. Conversations with Dale Larsen and Mike Miller has revealed that continuity exists into the Union, although the exact location of the cable's terminus has not been located in the old maintenance shop area. Plans also state that the line continues into the Great Hall; however, from either location, special cable line will need to be routed into the Lounge. This will need to be determined by Mike Miller or Terry Olson from Heritage in consultation with Russ Skei of the Union Staff.

Although most of the coordination responsibility will fall solely on CABLEXPO, mention should also be made of the access to the C.Y. Stevens trunkline terminal of the Heritage system. Arrangements are being made with Dave Popelka, Campus Organization Auditor, and Dave Olson and Steve Harder of the Iowa State Center staff to park a cargo van at a fixed location just outside the Auditorium. This van will be used to house two microcomputers and an RF modulator for the purposes of transmitting electronic billboard information. This arrangement will allow us 24-hour a day access to change programmed diskettes, free from building access charges which accrue every time the building must be opened by a dispatched stage-hand.

THE EQUIPMENT

Heritage has, through Mike Miller, offered to lend coaxial cable for the effort, so long as it is not damaged from the installation. Also, we will rely on Heritage to lend us eight convertors and ancillary connectors necessary to allow the two television sets at each viewing site to each receive the two respective Iowa State cable channels.

Four television sets, both color, 19 and 21", have been reserved from Media Resources for the six-day period beginning Tuesday afternoon, May 5th and ending Sunday evening, May 10th. If the four locations as outlined above are operational, these will be used for the live/tape channel. The second set, which will be tuned to the videotext channel, can be a black and white set, but we have not as yet been able to locate these four. Because they will be for a small group of people standing at a distance, they should also be at least 19 or 21". If you know where these could be obtained, please let me know.

The viewing sites themselves will be tastefully dressed with fabric below the sets, and our CABLEXPO logo above in supergraphics. Security will be provided either by individuals stationed at the Displays, and by the building staff at the Union and Library, respectively. CABLEXPO staff will handle this directly as well as getting the televisions on site on time.

THE TIMING

Obviously, time is not in abundance; however, it seems to be enough considering the number of people involved and interested in making this happen. Also, it is apparent that the individuals who will be spending the most time on this project will be Dale Larsen and his staff at WOI, Don Sprague from TCA, Mike Miller and Terry Olson with Heritage. But we will also be relying on every one else to be as supportive as possible so that the project is a success. I pledge my personal aid, so call me at any time after you read this letter to give me your news, views and comments.

I will be out of town until the afternoon of April 9th, so in the meantime, either wait, talk to the other individuals involved in the project, or call Mike Cummings, Cablexpo secretary, at 4-6003 to leave a message. My office number (as well as Roger Volker's, CABLEXPO advisor) is 4-6840.

Sincerely,

Greg Epler

Cablexpo
ISU cable television showcase

April 28, 1981

Dear Cablexpo Participant,

As you probably already realize, and so do we, CABLEXPO is nearly here. We hope that your tapes are completed and ready for us to use.

We would appreciate it if each tape and case are clearly marked with your NAME, ADDRESS, AND PHONE NUMBER, to avoid any mix-ups. Also include, taped to the inside of the case, any special instructions we should know when using your tape.

Cabexpo will be having a booth in the basement of the Union across from the Commons on MAY 1 from 10 a.m. to 5 p.m. Please drop off your tape during this time.

If you are unable to bring your tape to the Union on Friday please
call JAMIE KAESTNER at 292-9780
or GREG EPLER at 294-6840
before Friday!

Thank you. We are looking forward to putting your tape on CABLEXPO!!!!

Sincerely,

Jamie

Jamie Kaestner
Production Manager

jlk

Cablexpo
ISU cable television showcase

Mr.
290 Scheman
Iowa State University

Dear Sir:

The staff of Cablexpo is inviting you to join us in a discussion of New Communications Technologies in Higher Education to take place live on cable channel R from the TCA studios on May 10 at 3 PM. Sue Miller Buske,National Coordinator, of the National Federation of Local Cable Programmers, Robert Muhlbach, Manager of Instructional TV Programming, Michigan State University, and Larry G. Patten, Executive Director of IPBN, Des Moines will be on the panel sharing their abundant knowledge and experience in this field. Following the panel discussion, the invited studio audience will be asked to take part in a question and answer period.

Because of your involvement on the Ad Hoc Cable Committee, we believe your participation could make this event more meaningful, enhance the quality and direction of the discussion, as well as give you some valuable input for the cable committee.

This is an opportunity to get involved with informational TV on the ISU campus, with this special Cablexpo event. We hope you can come.

We would also like to remind you that from 1 - 3 PM "Access '80" will be broadcast, a program from the National Federation of Local Cable Programmers and from 4:30 -6:30 PM "Cable TV in Higher Education" from the U.S. Dept. of Education on Sunday, May 10. So stay tuned for these and other important broadcast events on Cablexpo from May 5 - May 10.

Sincerely,

Megan Epler Wood

APPENDIX C: MEDIA CLIPPINGS

CABLE TELEVISION

Look for announcement in Today's Daily for important meeting Saturday.

ISU Daily, 2/12/81

Cable Television

The exciting potential of Iowa State's newest form of media will be demonstrated this spring during Veishea week.

Join in a bold experiment which will explore the educational and informational use of cable tv in a univeristy community.

ACCESS

PARTICIPATION

CABLEXPO '81

You are cordially invited to attend
the first general organizational meeting

Saturday, February 14, [illegible] 10 am
Room [illegible] Scheman Building
Iowa State Center

Regrets to: Greg Epler 294-8840.

Coffee and donuts available.

Thursday, February 12, 1981

Cablexpo to bring ISU, Veishea to television

by **JAN TAYLOE**
Staff Writer

Two of Iowa State's five cable television channels will flicker to life this spring for a five-day experiment entitled Cablexpo '81.

Cablexpo will last for five or six days around Veishea time, probably starting before Veishea and ending after it, according to Greg Epler, Gr St 6, the project designer, and "will be a showcase of the potential that cable television holds for ISU."

An organizational meeting for Cablexpo will be held Saturday at 10 a.m. in Room 150, Scheman Continuing Education Building.

The University was granted five cable channels for its use when Ames awarded its cable franchise in early 1979, but none of them have been hooked up yet. The city also received five channels.

"Since January of 1980, nothing has really been done. The cable committee on campus dissolved in late 1979," Epler said.

"THIS PROJECT will help the University assess what level of interest and potential uses there are for cable here."

Epler said he got the idea for Cablexpo last summer in a journalism course. He will be using the data obtained from the project for thesis material.

"I did a lot of thinking about the ways the University could be convinced that cable television is a gold mine," Epler said.

"Cablexpo is a way to get the University going. I hope the University gets enough out of this to see the problems and solutions in a cable system."

Epler said the administration has shown a favorable response to the idea of Cablexpo.

"We're not burdening the University with fulltime participation. We have to learn how to use cable the best way we can in a short time before we try it fulltime, just as people have to learn how to walk before they can run," he said.

DURING CABLEXPO two types of programs will be run on the University's channels, he said. These will be educational and informational, using original and already existing material.

"About 80 percent of the programming will be a combination of existing materials on campus such as video tapes and films and electronic billboarding," he said.

Electronic billboarding would be announcements and news bulletins flashed on the screen, he said. They would be updated often and might contain such information as what activities were going on at Veishea.

The rest of the programming will be live or original. In about two weeks ideas for programming will be solicited, he said. Nothing definite has been decided yet.

"There is enough video equipment on campus that an organization or group with a good feasible idea can just about do anything. The uses are endless."

THERE WILL BE some live cablecasting where people can phone in, Epler said. Some instructional simulations might be set up so students could call in and ask a lecturer questions.

Anybody who has cable television will be able to see the experimental programs. Also

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{Page 1}

Cable

★ from page 1

there are three places on the University with cable connections: C.Y. Stephens Auditorium, Hilton Coliseum and Exhibit Hall, Epler said.

Only Exhibit Hall's connection is currently functional.

"By the time of Cablexpo we hope to have all of these functioning, plus several other high-traffic locations, such as the Memorial Union," he said.

THE RESIDENCE halls would not be included in the Cablexpo hookup. The project could provide information the University needs to help decide whether or not to put cable in the dorms.

If the University set up a permanent cablecasting system, it could be used in many different ways, Epler said.

"Telecommunicative arts and journalism students could use cable as a laboratory. They could cablecast student productions. They would have a guaranteed outlet for their work."

Classes could be taught by having lectures on cable. This would save the expense of flying professors around the state as they do now to teach some college courses, he said.

"The cable stations could be used to announce school closing, preclassification and registration information."

IT IS ALSO feasible the Daily could have a channel that could be used to announce tomorrow's big headlines and for news bulletins, Epler said.

"Cablexpo is kind of snowballing. There were a lot of people waiting for something to happen with cable at ISU.

"People recognize that cable television has a lot of potential, and they wouldn't have waited much longer without doing anything."

editorial

Learn by doing

Cable television is the communication medium of the future. Besides bringing viewers four back-to-back episodes of Gilligan's Island and eight versions of Star Trek, the cable industry predicts instantaneous stock market reports, security surveillance and electronic newspapers.

Yet Iowa State's five access channels have been dormant. Money and audience, or lack thereof, are the main reasons we haven't rushed to fill the channels with student productions and class lectures.

ISU administrators say the money simply isn't available to update the University's antiquated videotape broadcast facilities.

And because the great majority of students don't have access to cable TV, it is questionable whether the investment would be sensible. The potential student audience was cut in half last year when the Department of Residence decided against cable in student housing—a decision based mainly on the options Ames Cablevision offered.

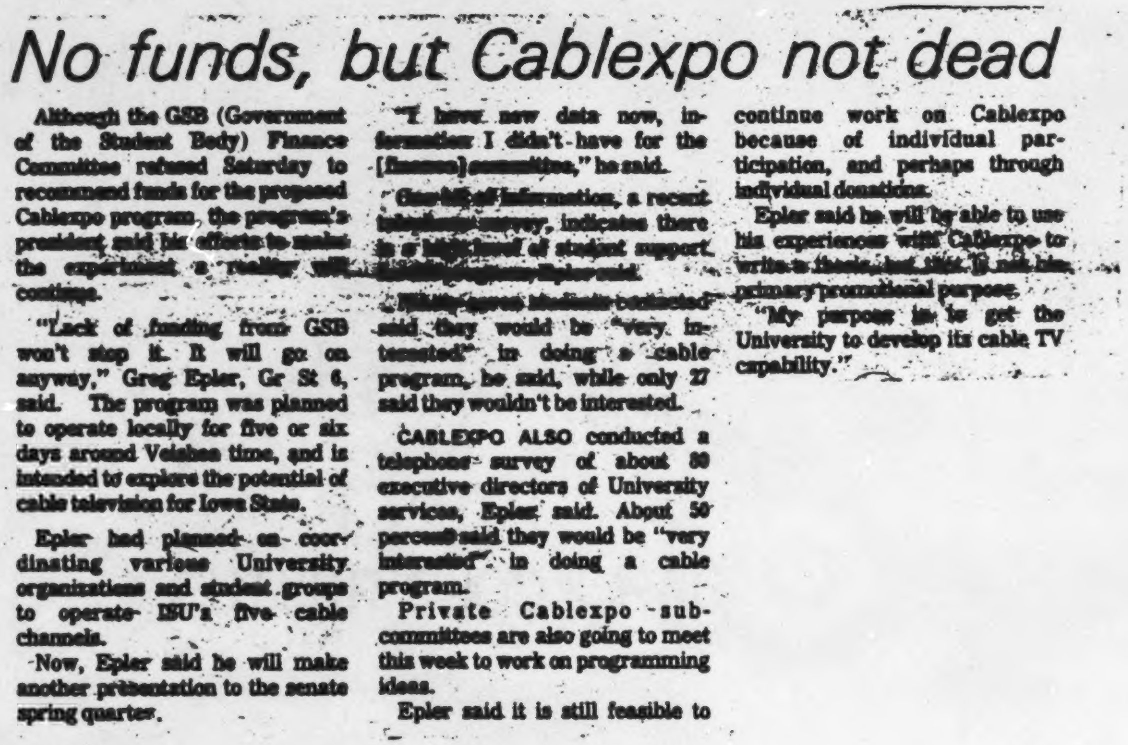
But this situation could change. "Cablexpo," an experimental "showcase" of cable programming slated for Veishea, will be Iowa State's first demonstration of cable's capabilities. Whether a success or a failure, the University should use the experiment as a starting point for ventures into cablecasting.

That doesn't mean spending millions for a state-of-the art studio with capabilities to broadcast on all five channels 24-hours a day, but starting out slowly with the equipment we have, learning as we go.

All members of the University community should consider this programming as an opportunity to preview cable's educational and recreational capabilities. And if they like what they see, they should take steps toward implementing more programming and getting the residence department to re-examine the possibility of installing cable in the dorms.

ISU Daily, 2/13/81

{Page 4}



No funds, but Cablexpo not dead

Although the GSB (Government of the Student Body) Finance Committee refused Saturday to recommend funds for the proposed Cablexpo program, the program's president said his efforts to make the experiment a reality will continue.

"Lack of funding from GSB won't stop it. It will go on anyway," Greg Epler, Gr St 6, said. The program was planned to operate locally for five or six days around Veishea time, and is intended to explore the potential of cable television for Iowa State.

Epler had planned on coordinating various University organizations and student groups to operate ISU's five cable channels.

Now, Epler said he will make another presentation to the senate spring quarter.

"I have new data now, information I didn't have for the [finance] committee," he said.

One bit of information, a recent telephone survey, indicates there is a high level of student support [illegible] program, Epler said.

[illegible] students contacted said they would be "very interested" in doing a cable program, he said, while only 27 said they wouldn't be interested.

CABLEXPO ALSO conducted a telephone survey of about 80 executive directors of University services, Epler said. About 50 percent said they would be "very interested" in doing a cable program.

Private Cablexpo subcommittees are also going to meet this week to work on programming ideas.

Epler said it is still feasible to continue work on Cablexpo because of individual participation, and perhaps through individual donations.

Epler said he will be able to use his experiences with Cablexpo to write a thesis, but that is not his primary promotional purpose.

"My purpose is to get the University to develop its cable TV capability."

ISU Daily, 2/18/81
{Page 1}

USAC may get Cablevision in fall

by DEBBIE HANSEN
Staff Writer

After a year and a half of debate, it looks promising. USAC (University Student Apartment Community) will be receiving Cablevision next fall.

Although an agreement between Heritage Cablevision and the University hasn't been reached, Terry Rich of Heritage Cablevision says it "looks favorable" that his company will accept a proposal he made to offer USAC residents the option of installing cable television.

"We should know within the next week," he said.

Carl Moen, director of USAC, said after Rich's "parent" company has agreed to his proposal, the Departant of Residence and the state Board of Regents must approve the proposal.

If the proposal is accepted by both parties, trunklines for cable television could be laid starting this summer.

ALTHOUGH CABLE television will be made available to the entire USAC community, individual residents will decide if they want to use the service.

"It will be made available to those students only if they subscribe to those costs." Rich said.

Heritage Cablevision is offering four different types of service to USAC residents. Each service differs in cost.

For $8 a month and a $20 installation charge, Heritage Cablevision will provide USAC residents with 14 network channels. This includes a 24 hour sports channel and channels out of Atlanta and Chicago.

HBO (Home Box Office) is another type of service offered by the company. It shows G, PG and R rated movies and also includes sports and special events. It will cost $8.95 a month plus a $15 installation charge.

CINEMAX IS A complement service to HBO. It also shows G, PG and R rated movies, but on a 24 hour basis. This service cost $8.95 a month plus an installation charge of $15.

Home Theatre Network is the final service offered to USAC residents. This service shows only G and PG movies and is aimed toward family viewing. Home Theatre Network cost $4.95 a month plus an installation charge of $15.

Don Whalen, coordinator of residence said USAC residents will be charged the same rates as Ames community residents because they will purchase the service individually.

The Department of Residence will ask residents who purchase the service to sign a release form permitting the residence department to release forwarding addresses to Heritage Cablevision when residents move out of their apartment, he said. This would be for Cablevison's billing purposes.

Whalen said the USAC council thought the Heritage Cablevision proposal is fair because USAC residents are being offered the option of purchasing it.

ISU Daily, 3/12/81
{Page 6}

faculty newsletter

published weekly by
the information service
iowa state university

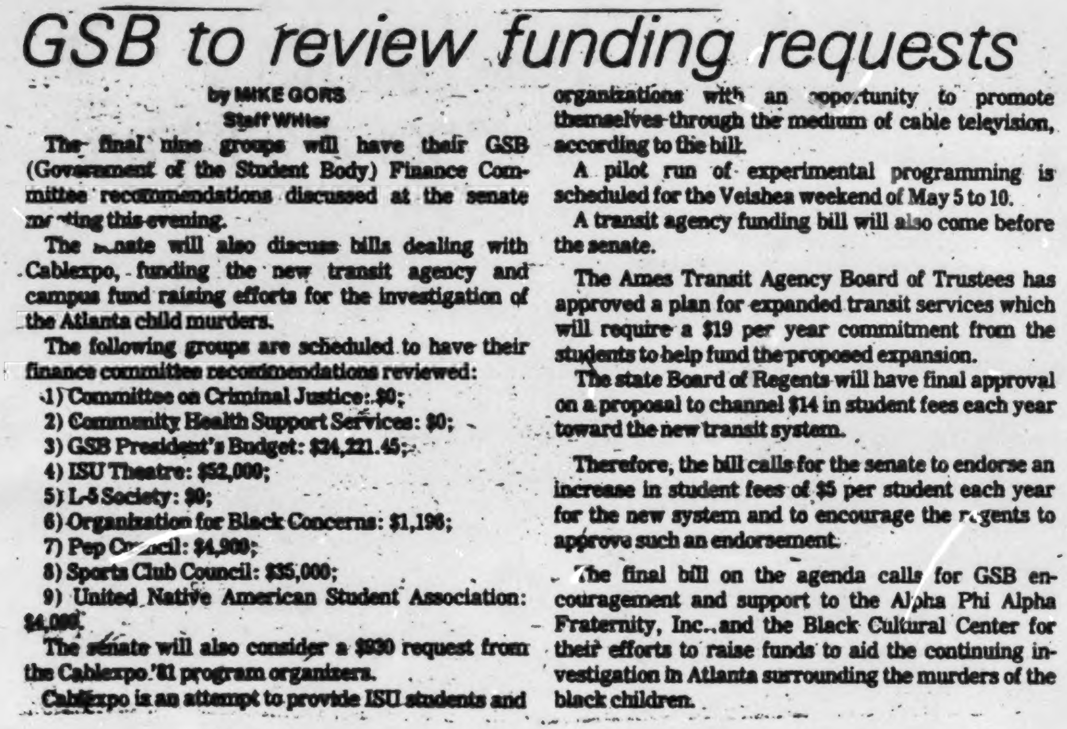
Address communications to Information Service, 109 Morrill Hall

PLANS FOR CABLEXPO, a week of university-related programing on cable television, are underway. Cablexpo, beginning May 6, will feature programs submitted by ISU faculty and staff members. The Cablexpo Program Development Committee encourages participation. Those who want to know more about Cablexpo, or who want to receive a copy of the Cablexpo newsletter, should contact Greg Epler at 4-6840, Fritz Nordengren at 233-2233 or Marge Fowler at 292-4364, before March 18.

3/13/81

CABLEXPO is week of university-related programming airing on cable television in May. Persons interested in Cablexpo, but who have not yet received a proposal sheet or the Cablexpo newsletter, may contact Greg Epler at 4-6840, or Fritz Nordengren at 233-2233.

3/20/81



GSB to review funding requests

by MIKE GORS
Staff Writer

The final nine groups will have their GSB (Government of the Student Body) Finance Committee recommendations discussed at the senate meeting this evening.

The senate will also discuss bills dealing with Cablexpo, funding the new transit agency and campus fund raising efforts for the investigation of the Atlanta child murders.

The following groups are scheduled to have their finance committee recommendations reviewed:

1) Committee on Criminal Justice: $0;
2) Community Health Support Services: $0;
3) GSB President's Budget: $24,221.45;
4) ISU Theatre: $52,000;
5) L-5 Society: $0;
6) Organization for Black Concerns: $1,196;
7) Pep Council: $4,900;
8) Sports Club Council: $35,000;
9) United Native American Student Association: $4,000.

The senate will also consider a $930 request from the Cablexpo '81 program organizers.

Cablexpo is an attempt to provide ISU students and organizations with an opportunity to promote themselves through the medium of cable television, according to the bill.

A pilot run of experimental programming is scheduled for the Veishea weekend of May 5 to 10.

A transit agency funding bill will also come before the senate.

The Ames Transit Agency Board of Trustees has approved a plan for expanded transit services which will require a $19 per year commitment from the students to help fund the proposed expansion.

The state Board of Regents will have final approval on a proposal to channel $14 in student fees each year toward the new transit system.

Therefore, the bill calls for the senate to endorse an increase in student fees of $5 per student each year for the new system and to encourage the regents to approve such an endorsement.

The final bill on the agenda calls for GSB encouragement and support to the Alpha Phi Alpha Fraternity, Inc., and the Black Cultural Center for their efforts to raise funds to aid the continuing investigation in Atlanta surrounding the murders of the black children.

<ins>ISU Daily</ins>, 4/7/81

{Page 7}

GSB wraps up group funding

by DEBBIE HAGEN
Staff Writer

The GSB (Government of the Student Body) Senate finished individual group budgets for fiscal year 1981-82 Tuesday night, cutting the money to some groups and giving increased allocations to others.

The senate also allocated $500 to the Cablexpo project and passed resolutions advocating a raise in students' contribution to the Ames transit system beginning next fall, and supporting campus fund raising efforts for the investigation of the Atlanta child murders.

ISU Theater and the Pep Council suffered the largest cuts while the GSB President's Budget and Committee on Criminal Justice were granted allocations above the amount recommended by the GSB Finance Committee.

Although the Pep Council originally requested $6,460 from GSB, the finance committee recommended the allocation be lowered to $4,000.

However, the senate further cut the amount to $2,000 to equal the $2,000 given the Pep Council by both the Athletic Association and Alumni Association.

THE SENATE also allocated a $700 contingency fund to match dollar for dollar increased funding from the associations up to the $700 limit.

Sen. Shawn Jacobson (UDA) said he thought GSB should zero the allocations for the Pep Council because the Alumni Association and Athletic Association should fund the group.

Tim Holmes, president of the Pep Council, said the council is totally a student-run organization and money from the Alumni and

★ to page 12

THE SENATE also allocated $500 to Cablexpo after taking out the funds designated for advertising from the original request of $930.

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{Page 1}

Cablexpo is taking applications

by DEBBIE LOVIG
Staff Writer

Cablexpo '81 is accepting applications for cable programs through Wednesday.

Greg Epler, director of Cablexpo '81, said about 10 applications have already been submitted for the project and about 12 to 15 are in the process of being filled out.

Cablexpo '81 is an educational cable television project that Epler plans to document for his thesis.

During the project, students, faculty and administrators will present a variety of programs under the supervision of the Cablexpo staff and the TCA (Telecommunicative Arts) Production Club. The programming is scheduled to coincide with Veishea.

Epler said the cable program is in a transition period. Applications for cable programming that will run May 5 to 10 are just now coming in and more are expected this week, he said.

MEDIA RESOURCES is expected to turn in five or six ideas and James Hutter, political science, is planning to film four debates, Epler said.

Epler said he needs more ideas for live presentations. Students are hesitant to perform on live tape, he said.

Epler is currently looking for groups that would like to be interviewers. A number of groups have volunteered to be interviewed, but none want to do the actual interviewing, he said.

Cablexpo programming time is free. If a group wishes to videotape its presentation the group can borrow a tape, Epler said.

However, if a group wants to keep the tape it will have to purchase a video cassette in advance from Media Resources. The cassettes cost about $20, Epler said.

Epler said the Cablexpo staff is available to groups that need help.

Exhibit Hall and the Memorial Union will be viewing centers for Cablexpo. Epler said he is also trying to set up televisions in MacKay Auditorium, the Library and, if it rains, the Armory.

All viewing centers will have two television sets. This is to provide viewing of both the channels Cablexpo will be shown on. One channel will be live tape. The other channel will be an electronic billboard of the events of the day.

FUNDING FOR Cablexpo has come from a variety of sources.

GSB (Government of the Student Body) allocated $500 to Cablexpo last week.

Also, Epler is using some of the money awarded to him by the Graduate College for his Cablexpo thesis.

Printing costs are being funded by RISE (Research Institute for Studies in Education), a funding unit of the College of Education. Funding has also been provided by the Iowa PIRG (Public Interest Research Group).

Mike Cummings, secretary of Cablexpo, said if Cablexpo is a success, Iowa State could take the lead in educational cable television.

Both the University of Iowa and Drake University have educational cable television programs, but neither are using the programs to their full potential, Cummings said.

ISU Daily, 4/14/81
{Page 13}

cable

,ONE COLD DEAD

'May 6, 9, 12, 17, 22, 25,
28, 30)

pping tale of murder and sus- out hot crime action under cold et lights. Richard Crenna stars. *v, violence, nudity.*

STRAW DOGS

R - May 2, 6, 10, 16, 21)

n Hoffman stars as a vulnerable ver; Susan George as his coquet- ;, both victimized by local thugs ight in mindless brutality. But uch can a civilized man take ie erupts into savagery? *Strong ;, nudity.* (1971)

TOURIST TRAP

- May 7, 12, 16, 18, 22, 24,
27, 30)

ed for the beach, a group of rs become entangled in a night- hen they find themselves in an he-way museum, with "dum- howing horrifying signs of life th. *Profanity, violence.*

WHERE'S WILLIE?

- May 6, 9, 11, 15, 19, 21,
26, 30)

ight-vear-old genius causes havoc is schemes. Marc Gilpin stars as y who would rather program a ter than play basketball or fish s father.

hunt him down, in this tale of murder, pursuit and terror in rural England. (1937)

CABLE XPO

Iowa State University goes "on the wire" on Tuesday evening, May 5th with a week long showcase of diverse and entertaining programming. The event is called CABLEXPO '81 and will feature student productions, information and instructional programs, live interviews and panel discussions and samplings of media which are produced by the varied segments of the university.

CABLEXPO will cablecast on two channels – one programmed with live and taped presentations and the other dedicated to continually up-dated information on VEISHEA events, campus news and other timely announcements.

Watch the May 1st Ames Tribune and the May 5th ISU Daily for program schedule.

Channels: Q & R
May 5 through May 10

Tuesday 5:00 pm; Wednesday noon to 11 p.m.; Thursday noon; Friday 9 a.m. to 11 p.m.; Saturday 9 a.m. to 11 p.m.; Sunday 1 p.m. to 11 p.m.

ALL MOVIES ARE LISTED IN ALPHABETICAL ORDER

LOLITA (NR 2:35)
FATHER OF THE BRIDE (NR 1:33)
HESTER STREET (PG 1:31)
WHERE TIME BEGAN (G 1:26)
BLUE FIN (PG 1:30)
FATHER OF THE BRIDE (NR 1:33)
LOLITA (NR 2:35)
STONE COLD DEAD (R 1:38)
HUSTLE (R 2:00)
HESTER STREET (PG 1:31)

Tuesday, May 26

THE MUPPET MOVIE (G 1:31)
DAYS OF HEAVEN (PG 1:34)
OH, WHAT A LOVELY WAR (G :15)
E CORSICAN BROTHERS (NR

6:30 THE MUPPET MOVIE (G 1:31)
8:00 SOLDIER OF ORANGE (R 2:00) (Dub)
10:00 DEATH RACE 2000 (R 1:21)
11:30 OH, WHAT A LOVELY WAR (G 2:15)
2:00 SOLDIER OF ORANGE (R 2:00)
4:00 DEATH RACE 2000 (R 1:21)

Wednesday, May 27

5:30 THE MAN WHO KNEW TOO MUCH (NR 1:24)
7:00 MYSTERY ISLAND (G 1:15)
8:30 CINEMAX SHORT FEATURE
9:00 TOURIST TRAP (PG 1:30)
10:30 THE MAN WHO KNEW TOO MUCH (NR 1:24)

10:30 HESTER S.
12:00 WHERE TIME
1:30 THE CORSICAN 1:51)
3:30 SAFARI EXPRESS (PG
5:30 WHERE TIME BEGAN (
7:00 SKIDOO (PG 1:38)
9:00 HESTER STREET (PG 1:3
10:30 JOHNNY GOT HIS GUN (
12:30 THE CORSICAN BROTH 1:51)
2:30 STONE COLD DEAD (R 1:

Friday, May 29

5:00 MYSTERY ISLAND (G 1:
6:30 THE PRIZE FIGHTER (PG
8:30 HIDE IN PLAIN SIGHT (P
10:00 THE FINAL COUNTD 1:42)
12:00 LOLITA (NR 2:35)
3:00 MYSTERY ISLAND (G 1:
4:30 THE PRIZE FIGHTER (P
6:30 HIDE IN PLAIN SIGHT (P
8:00 THE FINAL COUNTD 1:42)
10:00 ROLLING THUNDER (R
11:45 HIDE IN PLAIN SIGHT (P
1:15 LOLITA (NR 2:35)
3:45 ROLLING THUNDER (R

Saturday, May 30

5:30 WHERE'S WILLIE (G 1:3
7:00 A SEPARATE PEACE (P
9:00 FATHER OF THE BRID
10:30 TOURIST TRAP (PG 1:3
12:00 A SEPARATE PEACE (P
2:00 FATHER OF THE BRID
3:30 WHERE'S WILLIE (G 1:3
5:00 TOURIST TRAP (PG 1:3
6:30 FATHER OF THE BRID
8:00 STONE COLD DEAD (R
10:00 THE HITCHHIKERS (R
11:30 TOURIST TRAP (PG 1:2
1:00 STONE COLD DEAD (R
3:00 THE HITCHHIKERS (R

Sunday, May 31

5:00 WHERE TIME BEGAN (
6:30 JOHNNY GOT HIS GUN
8:30 HESTER STREET (PG 1
10:00 THE MUPPET MOVIE (
11:30 JOHNNY GOT HIS GUN
1:30 THE MAN WHO KNEW (NR 1:24)
3:00 CINEMAX SHORT FEA
3:30 WHERE TIME BEGAN
5:00 THE MUPPET MOVIE (
6:30 HESTER STREET (PG
8:00 THE MAN WHO KNEW (NR 1:24)
9:30 AMARCORD (R 2:07

MAY, 1981

Heritage Cablevision's Cable. May 1981, p. 23.

6 Ames Daily Tribune, Wednesday, April 22, 1981

On the campus

ISU students to produce television 'Cablexpo'

ISU Information Service

Local news, sports, documentaries and entertainment will flood the airways of the two Iowa State University cable television channels May 5-11 in one of the most concentrated student-produced programming projects in the nation — Cablexpo.

More than 300 ISU students, faculty and administrators are participating in the presentation of ISU-produced programming to Ames cable television viewers for six consecutive days, 24 hours a day.

Programs to be aired range from the history of Veishea float building to the art of synchronized swimming. Live call-in panel discussions, student-produced documentary films, demonstrations of the martial arts and a continuous update on Veishea events will also be cable[illegible].

CABLEXPO started as an idea for a project in one of Gregory Epler's classes last summer. Epler, director of Cablexpo, is a graduate student at ISU and is preparing for a career in communications consulting.

In his class, Epler studied the pros and cons of using mass communication techniques to persuade communities to adopt new innovations into their lives. An example of such an innovation is cable television.

"Cablexpo is an experiment demonstrating the cable television possibilities and potential at ISU," Epler said. "The data collected from the experiment will help us to determine the level of participation and the kind of programming available at ISU."

Cablexpo also will educate people about the benefits of cable television and give first-hand videotaping and producing experience to students, faculty and administrators, Epler added.

TIM MCNAMARA, Clinton, a sophomore majoring in telecommunicative arts, is taping a program on self-defense. "Cablexpo is an excellent opportunity for a student in my field to get his program on the air in front of the public," he said.

James Hutter, associate professor of political science, is taping his public policy class participating in debates on the public policy issues they have been researching throughout the quarter. He said, "I think cable television is a great opportunity for people in the public to make their views known to the public."

What started as one person's idea last summer has now grown into a complex project staffing 20 students.

Fritz Nordengren, a junior majoring in journalism and mass communication, heads Cablexpo publicity. He said a large part of the staff consists of program developers or producers who help participants put a program together. More than 40 student organizations plan to participate.

''PROGRAM developers also will refer participants to people on campus who can teach them camera or video equipment operation in a couple of hours,'' Nordengren said.

Nordengren emphasized the responsibility for the design and production of the program is up to the participant. "Cablexpo is a do-it-yourself project."

Nordengren said Heritage Cablevision, cable television franchise holder for Ames, Jefferson, and Nevada, is lending nearly $100,000 worth of production and transmission equipment to help Cablexpo "go on the wire." However, he stressed Cablexpo is not promoting cable television for Heritage.

Lack of money has been a nagging problem for Cablexpo, Nordengren said.

THE ISU Government of Student Body recently allocated Cablexpo $500 to help defray their costs. "I think this shows that campus leaders are well aware of the potential of Cablexpo and the educational possibilities of cable television," Nordengren said.

"Not only is Cablexpo an experiment and model for the University, but it is also a model for every community and state in the nation," Nordengren said. "It gives people a chance to see television being used to its fullest potential."

The Cablexpo staff wants people to realize that television is a medium of exchange, a two-way street," Nordengren said.

Epler added, "Up to now, television has been controlled by a scant few — the network executives, ad agency executives and a few writers. We have a revolutionary tool available to us allowing the public to control a form of communication."

Ames Daily Tribune

TV WATCHER'S WEEKLY

WEEK OF MAY 2

Cablexpo makes debut Tuesday on cable television

Local news, sports, documentaries and entertainment will all be a part of what will be programmed for Ames cable television viewers during a concentrated Iowa State University student-produced project, Cablexpo. For six consecutive days, May 5-11, Cablexpo will be a 24-hour showcase for student produced documentary films, live call-in panel discussions, continuous updates on Veishea events and such diversified subjects as martial arts and synchronized swimming.

The project is under the direction of Gragory Epler, a graduate student at ISU who is preparing for a career in communications consulting. Fritz Nordengren, a junior majoring in journalism and mass communication is in charge of Cablexpo publicity.

There is a staff of 20 students working on the complex project with more than 40 student organizations participating. Heritage Cablevision is lending production and transmission equipment for the project.

A day by day listing of Cablexpo offerings is included in this week's edition of *TV Watcher's Weekly*.

Cablexpo offerings will be shown on Cable Channel R.

TUESDAY, MAY 5

P.M.
5:00—President's Welcome
5:05—History of Veishea
5:30—College Week
6:00—Guanaco of Patagonia
6:30—News
6:45—Laura's Garden
7:00—On Trial
8:00—Book By Cover
8:15—Press & Public
8:45—Job Board
9:00—Solar Solution
10:00—L-5 Society

WEDNESDAY, MAY 6

P.M.
12:00—Ceramic Engineering
12:15—Communication Careers
12:30—Food for Thought
1:00—Bicycle Safety
1:30—Air Force at ISU
1:45—Estancia Living
2:00—Growing Years
2:30—Office of Student Life
3:00—Am. Energy Needs
4:00—Winnebago Pow Wow
4:30—Toughest Barrier
5:00—Scripture Madness
5:30—Horticulture, Ment. Disabled
6:00—Cosmopolitan Club
6:30—News
6:45—Peer Advising
7:00—Reagonomics
8:00—Snedocorian Singers
8:15—Press & Public
8:45—Job Board
9:00—ISU, Then & Now
9:30—Your YWCA
10:00—Fencing
10:45—Laura's Garden

THURSDAY, MAY 7

A.M.
9:00—Game Fish
10:00—Food Stuff
10:30—Farmed with Horses
11:00—He Loves Me
P.M.
12:00—Surviving as Single Parent
12:30—Toughest Barrier
1:00—Outlooks on Art
1:30—We Are of the Soil
2:00—Threatend Guanaco
2:15—Access ISU
3:00—Iowa Downtowns
3:30—Your Next University
3:45—Cinematography
4:00—Secondary Education
4:30—Last Pony Mine
5:00—Science Fiction
6:00—Ames Laboratory
6:30—News
6:45—World at Doorstep
7:00—On Trial: Abortion
8:00—Brunnier Gallery
8:15—Press & Public
8:45—Young Talent
9:00—Guanaco of Patagonia
9:30—Fast Forward
10:00—The End?
10:30—Iowa Prairies

FRIDAY, MAY 8

A.M.
9:00—Iowa Coal
9:30—It Has Begun
10:00—Food Stuff
10:30—Book By Cover
10:45—Telecourse
11:00—Air Force at ISU
11:15—Bluegrass Music

P.M.
12:00—Celebrity Cafe Preview
12:30—Farmed with Horses
1:00—Free Lance
1:30—Careers
1:45—Food for Thought
2:15—Access ISU
3:00—He Loves Mes
4:00—Iowa's Water
4:30—Scripture Madness
5:00—Light of World
6:00—Horticulture at ISU
6:30—News
6:45—Forestry
7:00—On Trial: Policy
8:00—World at Doorstep
8:15—Press & Public
8:45—Estancia Living
9:00—Science Fiction
10:00—Communication Careers
10:15—Fencing

Live from ISU on cable

About 70 hours of cable television programing will originate from Iowa State Tuesday-Saturday.

Cablexpo '81 is the brainchild of Greg Epler, Gr St 6.

Fritz Nordengren, Cablexpo publicity director, said the programing is diverse and will be a mixture of educational programing and entertainment.

Cablexpo will be broadcast on cable channel R. Ames residents with cable television will be able to view the programs. There will be monitors set up in Exhibit Hall in its lobby and one of the studios. All live programing will originate from Exhibit Hall.

Channel R is one of five channels Iowa State owns.

Nordengren said he expects Cablexpo to become a role model for other universities and communities that are considering setting up cable programing.

Around 20 different groups have sponsored programing. More groups had considered sponsoring programing but some groups ran out of time to have programing put together. By the time some groups made a decision, there was no production time available.

Cablexpo has a core staff of about 20 people, Nordengren said.

The complete schedule of Cablexpo '81 programing is listed on pages eight and nine of today's Daily. A short summary of each program is included.

ISU Daily, 5/5/81

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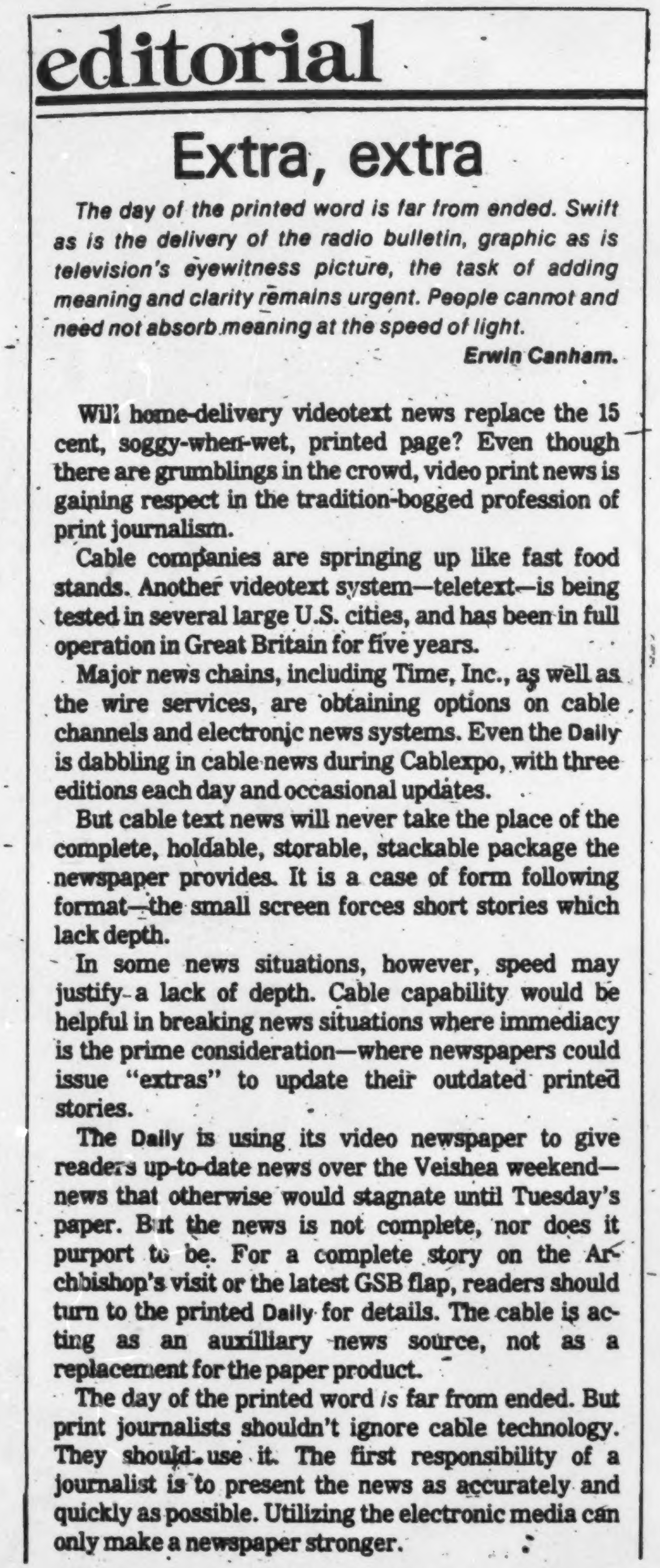

editorial

Extra, extra

The day of the printed word is far from ended. Swift as is the delivery of the radio bulletin, graphic as is television's eyewitness picture, the task of adding meaning and clarity remains urgent. People cannot and need not absorb meaning at the speed of light.

Erwin Canham.

Will home-delivery videotext news replace the 15 cent, soggy-when-wet, printed page? Even though there are grumblings in the crowd, video print news is gaining respect in the tradition-bogged profession of print journalism.

Cable companies are springing up like fast food stands. Another videotext system—teletext—is being tested in several large U.S. cities, and has been in full operation in Great Britain for five years.

Major news chains, including Time, Inc., as well as the wire services, are obtaining options on cable channels and electronic news systems. Even the Daily is dabbling in cable news during Cablexpo, with three editions each day and occasional updates.

But cable text news will never take the place of the complete, holdable, storable, stackable package the newspaper provides. It is a case of form following format—the small screen forces short stories which lack depth.

In some news situations, however, speed may justify a lack of depth. Cable capability would be helpful in breaking news situations where immediacy is the prime consideration—where newspapers could issue "extras" to update their outdated printed stories.

The Daily is using its video newspaper to give readers up-to-date news over the Veishea weekend—news that otherwise would stagnate until Tuesday's paper. But the news is not complete, nor does it purport to be. For a complete story on the Archbishop's visit or the latest GSB flap, readers should turn to the printed Daily for details. The cable is acting as an auxilliary news source, not as a replacement for the paper product.

The day of the printed word *is* far from ended. But print journalists shouldn't ignore cable technology. They should use it. The first responsibility of a journalist is to present the news as accurately and quickly as possible. Utilizing the electronic media can only make a newspaper stronger.

ISU Daily,
5/7/81
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Cablexpo has local programming

by MARK McDERMOTT
Staff Writer

Cable TV subscribers in Ames are getting their first look at the real potential of local cable programming this weekend.

Cablexpo '81, the idea of Greg Epler, GR ST 6, has been on the air since Wednesday evening, providing informational programming on many of the facets of Iowa State, its departments, organizations and services.

Epler said Cablexpo got its start in a graduate journalism course during the summer, taught by Associate Professor Jerry Nelson. The class was on aspects of strategy and public opinion, the effects of polling, and advertising campaigns to help convince people to adopt new innovations. One kind of innovation discussed was the access channels provided by Heritage Cablevision. Heritage had reserved some of its channels for use by the people of Ames, through the schools, ISU and the public in general.

"WE HAD TO EXPLAIN to people something they'd never seen before—access programming by the users of the system instead of network-prepared programming.

"With local cable channels at a standstill, we came up with an idea where the whole university could be involved at once. . . . At the time I was looking for a way to gain experience in using cable, working with organizations and individuals in developing programming." So, Epler said, he developed the idea for what became Cablexpo.

"I convinced the Graduate Committee to let me do this for my thesis work, though some of them were slightly incredulous, as it had never been done before." He was also able to get funding from GSB and other sources for his project.

Epler said he started in February with a survey of the campus administration on his Cablexpo concept. The publicity from that poll, a Daily article and phone surveys allowed him to make contact with many people who were interested in the concept. He then found what kind of programming he could look forward to: from student organizations, faculty, university services and others.

Epler set up a staff of volunteers looking for production experience who could help the various organizations in developing and preparing their programs. As a result, Cablexpo has been provided with about sixty different sources of programming.

CABLEXPO IS SCHEDULED to be on cable channel R for seventy hours of programming, ending Sunday. Channel B is also in use as a news service run by the Daily.

For a project of this size, Epler had to call on a number of sources for the proper equipment, including Heritage, TCA, Media Resources Center, the Vet Med Communications Center, the Instructional Resources Center and Ames High School.

The Apple III computer running text on Channel B was provided by Beacon Electronics, 213 Lincoln Way, and the Atari on Channel R came from Varnum Computers and Video, 1113 Colorado.

So far the biggest disappointment in Cablexpo has been its inability to be shown on campus. "We were hoping to run it over the campus closed circuit system, but it turned out that the system transmitted in the wrong band for our channels, and we couldn't get the proper amplifiers."

BUT THE TCA DEPARTMENT in Exhibit Hall, one of the few on-campus locations wired for cable, will be showing Cablexpo, as well as originating the programming. Its lounge area will be open with a Veishea exhibit, and the north side of the building, where Cablexpo's control center is, will also be opening during programming hours.

Epler said some problems were encountered the first night of broadcasting, but "otherwise we had no major catastrophes."

Cablexpo is also being run throughout the Heritage system on the Iowa Cable Network, when not pre-empted for other regular programming.

Epler said he hopes this experiment will show more people the possibilities of cable access. "The main mission of Cablexpo has been as a feasibility study, to have the opportunity to have this new technology spread through a wider audience."

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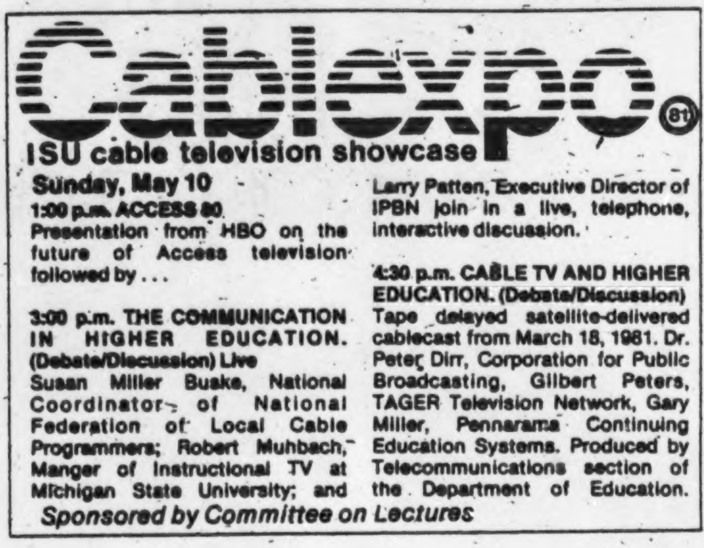

Cablexpo 81

ISU cable television showcase

Sunday, May 10

1:00 p.m. ACCESS 80
Presentation from HBO on the future of Access television followed by . . .

3:00 p.m. THE COMMUNICATION IN HIGHER EDUCATION. (Debate/Discussion) Live
Susan Miller Buske, National Coordinator of National Federation of Local Cable Programmers; Robert Muhbach, Manger of Instructional TV at Michigan State University; and Larry Patten, Executive Director of IPBN join in a live, telephone, interactive discussion.

4:30 p.m. CABLE TV AND HIGHER EDUCATION. (Debate/Discussion)
Tape delayed satellite-delivered cablecast from March 18, 1981. Dr. Peter Dirr, Corporation for Public Broadcasting, Gilbert Peters, TAGER Television Network, Gary Miller, Pennarama Continuing Education Systems. Produced by Telecommunications section of the Department of Education.

Sponsored by Committee on Lectures

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Ames Daily Tribune

TV WATCHER'S WEEKLY

Week of May 9

Cablexpo

Local news, sports, documentaries and entertainment will all be a part of what will be programmed for Ames cable television viewers during a concentrated Iowa State University student-produced project, Cablexpo.

CABLE R

SATURDAY, MAY 9

A.M.
9:00—Light of the World
10:00—Food Stuff
10:30—Child Development
11:00—History Day, 81
11:30—Single Parenting
P.M.
12:00—Iowa Downtowns
12:30—Cosmopolitan Club
1:00—Ethanol Debate
1:30—Virgin Islands
2:00—Telecourse
2:15—Access ISU
3:00—We Are of the Soil
3:30—Horticultrue at ISU
4:00—Secondary Education
4:30—Extension 80
5:00—Horticulture
5:30—By Design
6:00—Ethanol Debate
6:30—News
6:45—Free Lance
7:15—Songfest
7:45—Celebrity Cafe
8:00—L-5 Society
9:00—America's Energy
10:00—Iowa's Water
10:30—Canada Goose

SUNDAY, MAY 10

P.M.
12:00—Parade Highlights
3:00—Telecommunication
4:30—Cable TV
6:00—Bluegrass Music
6:45—Brunnier Gallery
7:00—Virgin Islands
7:30—Ames Laboratory
8:00—Suger
8:30—Veishea Floats
9:00—History Day 81
9:30—Office Student Life
10:00—Visions of '80s
10:30—It Has Begun

APPENDIX D: ISU CABLE TV COMMITTEE FINAL REPORT AND RECOMMENDATIONS

IOWA STATE UNIVERSITY CABLE TELEVISION COMMITTEE
FINAL REPORT AND RECOMMENDATIONS
DECEMBER 1979

In response to the possible acceptance of Cable TV by the Ames community, the ISU Cable TV Committee was established by the Office of Academic Affairs and its members appointed prior to the cable TV election held in 1978. The committee at that point was charged with ascertaining ISU's general interest in supporting the advent of cable to the Ames community. Following the election, ISU was represented by the chairperson of its own committee on a city ad hoc cable TV committee charged with drafting an ordinance for approval by the Ames city council. In terms of ISU interests, the ordinance specified the offer by Ames CableVision(Heritage) to provide the University free of charge five drops for cable reception and five channels for broadcast origination, the location for each to be designated at a later date. Perhaps not as specific but strongly implied - and supported by direct commitment to President Parks and the ISU Cable TV Committee - the ordinance reflected Iowa State University's right to negotiate directly with Ames CableVision in all matters legally within the institution's own province and those deemed appropriate to the mutual interest of both.

After Ames voted to allow cable TV into the community, the ISU Cable TV Committee agreed that its mission was to determine the role cable television would have on campus. The mission was analyzed into the following components:

1. To identify priorities governing the use of cable TV at Iowa State University.
2. To specify locations for the five drops available to the University in consideration of their maximum use potential.
3. To specify locations for the five originating channels in consideration of their maximum use potential and any technical constraints identified by Ames CableVision.

4. To prescribe for one origination channel the source of administrative responsibility, over-all functions, management procedures, dimensions of staffing and financial support. Remaining channels will be phased-in as the need dictates.

The Committee has taken the firm position that the importance, as well as its legitimacy, of an ISU cable television channel is directly related to the degree of support it provides for the academic interests on campus and in the community. In effect, its primary thrust and the governing priorities must be educational: meeting genuine instructional needs, contributing to Extension's efforts, and providing students, faculty and administration with a communication capability not otherwise available.

One factor vitally important toward having an ISU channel serve an educational function is the accessibility students will have in receiving broadcasts. Several options which address this need are being explored by the Department of Residence. Among them is a tentative proposal by Ames CableVision for wiring and equipping all dormitory rooms and other student housing units to receive cable television. Another approach under consideration, not unlike the solution at other institutions, is the use of a centralized facility in each of the student resident units for viewing cable television programs.

The following locations were recommended by the Committee and forwarded to Ames CableVision:

Drops for receiving cable TV

WOI-TV Communications Building
TCA-Exhibit Hall
The ISU Library
Iowa State Center Complex
Journalism & Mass Communications

Origination channels for broadcasting cable TV

Exhibit Hall
Iowa State Center Complex
The Vet Med Complex
Memorial Union
Computation Center

To date, only TCA-Exhibit Hall has been equipped for its drop and origination channel. The Physical Plant is exploring with Ames CableVision the most feasible means for running lines to the other locations on campus.

The Committee has completed its deliberations concerning the specifications for an origination channel, in this case located in Exhibit Hall, and submits the following recommendations for approval by the Administration:

1. Encourage the Department of Residence to find ways to make cable television accessible to a majority of its students.
2. Consider the establishment of cable reception facilities available in convenient locations on campus to all students, non-residents as well, since programs on the ISU channel will play an integral part in supporting instructional activities.
3. Assign Central Administration responsibility and leadership for operating ISU cable TV channels to the Office of Academic Affairs, in view of educational activities being its overriding function.
4. Establish a standing committee to set policy, monitor its application, and adjudicate management and programming decisions when in dispute. Representation on the committee should be drawn from administration, faculty and student sources, but invariably include Telecommunicative Arts, Journalism & Mass Communications, WOI, Extension, The Library, Media Resources, Residence Halls and the Computation Center.
5. Provide funds for at least one full-time specialist to plan programming development and to manage the channel's daily operation.
6. Provide support for additional technical staff as the need develops, depending otherwise on student technical support where feasible.
7. Identify long-term financial support for the ISU channel located in Exhibit Hall as a regular budget item, but provide from immediate sources a modest fund for activating the channel to the level of broadcasting videotaped programs and on-line messages ("character generation"). The actual amount is contingent on the cost of basic equipment and software

but is estimated to be in the range of $10,000 - $20,000. Long-term financial support should be used to phase-in a fully equipped small format television studio capable of live and recorded color broadcasts.

8. Assign to the channel facility currently available in Exhibit Hall, as one of its primary functions, the role of a Communications Center laboratory to be shared by students in Telecommunicative Arts and Journalism & Mass Communications (and other related programs). The Committee proposes that such a Communication Center in combination with an active origination channel represents the most cost-effective approach in meeting equipment, facility and staffing requirements.
9. Require cable TV programming to be devoted, first, to improving the quality of instruction, and only secondarily as a device for cost-effective efforts.
10. Allow programming to cover a full range of selections, including credit courses, student productions, administrative announcements, registration information, Extension tapes, previews (eg. experimental courses), audiovisual assignments, club and intramural sports, TV journalism, workshop events, and other educational activities.
11. Assign to the Computation Center responsibility for investigating the feasibility of using an additional origination channel for remote computations.
12. Regard programming and the operation of an ISU channel initially as a trial effort, to be periodically reviewed by the standing committee, which will recommend their continuation, modification or suspension.
13. Give substantial weight to the needs and interests of the student body in decisions made with respect to the development of cable TV at Iowa State University. In support of this recommendation, procedures should be devised for obtaining student input on an on-going basis.

Upon acceptance of these recommendations and establishment of the standing committee, the Ad Hoc Committee respectfully proposes that, since its primary mission will have been carried out, it be discontinued as a functioning body.

APPENDIX E: BUDGETS AND BALANCE SHEET

Budget
CABLEXPO '81
February 10, 1981

Gregory Epler,
Pres. & Treasurer
Roger Volker,
Faculty Advisor
Phone: 294-6840

INCOME

guaranteed:		
	Graduate College Research Mini-Grant (supplemented by Graduate Student Senate)	$300.
projected:		
	City of Ames Franchise Fund	100.
	Heritage Cablevision	300.

EXPENSES

Office:			
reproduction	$30.		
stationery	65.		
postage	30.		
telephone	80.		
supplies	15.		
		$220.	
Other:			$220.
(newsletter)			
printing	$50.		
address labels	8.		
postage	22.		
		$80.	
(program guide)			
1000 copies	$150.		
Layout	30.		
		$180.	
(educational outreach)			
software rental	$180.		
journals/reprints	70.		
		$250.	
(publicity)			
ISU Daily	$186.		
layouts	80.		
		$266.	
(construction materials)			
from Central Stores	$90.		
on-air graphics	40.		
		$130.	

-cont.-

CABLEXPO '81, budget continued
February 10, 1981

(transportaion)				
equipment procurement	$45			
		$45.		
(production)				
technical assistance	$150.			
video editing time	80.			
two phone lines	60.			
		$290.		
(lecturers)				
RT from Iowa City	$50.			
RT from Minneapolis	50.			
½ air fare from Wash, DC	115.			
lodging (3 @ $30.)	90.			
meals	60.			
honorariums	80.			
		$445.		
			$1686.	
Capital Investments:				
Cable, transformers, connectors, etc.	$100.			
videocassettes	216.			
		$316.		
			$316.	
				$2222.
less other sources				-700.
				1522.
less "lecturers"				-445.
GSB AMOUNT REQUESTED				$1077.
LECTURERS AMOUNT REQUESTED				$445.

To the best of my knowledge, this is a fair and accurate representation of expenses necessary for the execution of CABLEXPO '81.

Gregory D Epler W. 2/10/81
GREGORY D. EPLER WOOD DATE

CABLEXPO '81

March 26, 1981

SPECIAL ALLOCATION REQUEST

INCOME (cash)

R.I.S.E. Minigrant	$ 85.00	
Graduate Student Senate	25.00	
Iowa PIRG	25.00	
Graduate College Minigrant	45.00	
Participant Co-op Ad Fees	350.00	
Personal Contribution	60.00	
Total Income:		$590.00

(In-Kind)

Heritage Cablevision	$16,000.
Veishea	500.
WOI-TV	344.
TCA Production Club	150.
Media Resources Center	140.

EXPENSES

Office Expenses

Printing	$ 70.00
Postage	38.00
Telephone	40.00
Supplies	35.00
	$183.00

Other Expenses

Newsletter (4 @ $50.)	$ 150.00
Program Guide	490.00
Other Publicity	227.00
Telephone Lines	140.00
On-Air Graphics	40.00
Misc. Hardware	50.00
	$1097.00

Capital Expenses

Connectors, cable, transformers, video & audio tape	$80.00

Total Expenses:	$1360.00
Less Income:	590.00

GSB Allocation Request: $770.00

[illegible] D.3

CABLEXPO EXPENSES--Final Report July 1981

Staff:Recruitment and Administration

OFFICE		
Phone	20.00	
Reproduction	16.02	
Supplies	32.18	
Bookkeeping	20.00	
	88.20	
RECRUITMENT		
Advertising	41.80	
Meeting Room Rent	50.40	
Flyer Printing	12.00	
	104.20	$192.40

Publicity and Public Education

GENERAL PROMOTION		
Logo	15.02	
T-Shirts	150.99	
	166.01	
NEWSLETTER		
Printing	231.19	
Postage	31.60	
	262.79	
SEMINAR		
Printing	4.65	
Telephone	6.20	
Videotaped Pgms.	94.00	
Honoraria	250.00	
Meals & Lodging	82.31	
Ground Transp.	67.47	
Air Fare	706.00	
Postage	4.68	
	1215.31	$1644.11

The Cablecast

Telephone	201.13	
Studio Equip.	62.28	
Printing	50.88	
Pgm. Guide Ad.	494.45	
	808.74	$808.74

TOTAL: $2645.25

CABLEXPO INCOME

Direct

Government of the Student Body	$500.00
T-Shirt Sales	129.00
Program Guide Fees	388.50
IPIRG	50.00
Self	70.62
	$1138.12

Reimbursed

SEMINAR

GSB Comm. on Lectures	$1115.31
University Extension	25.00
Dept. of JLMC	50.00
TCA Area of Speech Dept.	25.00
Office VP for Academic Affairs	25.00
	$1240.31

RESEARCH MINI GRANT

Graduate College	50.00
Graduate Student Senate	29.21
Research Institute for Studies in Education	187.61
	$266.82

TOTAL: $2645.25

In-Kind

Heritage Cablevision (Equipment Rental & Labor)	$16,000.
WOI-TV (Labor)	344.
VEISHEA (TCA Prod. Club Display)	25.

APPENDIX F: HUMAN SUBJECTS COMMITTEE APPROVAL

INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH
IOWA STATE UNIVERSITY

(Please follow the accompanying instructions for completing this form.)

1. Title of project (please type): CABLEXPO: A Key Element in an Adoption Strategy

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

GREGORY D. EPLER WOOD	1/12/81	Gregory D. Epler Wood
Typed Named of Principal Investigator	Date	Signature of Principal Investigator
Instructional Resources Center North Quadrangle Building	4-6840	
Campus Address	Campus Telephone	

3.

Signatures of others (if any)	Date	Relationship to Principal Investigator
Roger Volker	1/12/81	Major Prof.

4. ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.

JAN 1981

☐ Medical clearance necessary before subjects can participate
☐ Samples (blood, tissue, etc.) from subjects
☐ Administration of substances (foods, drugs, etc.) to subjects
☐ Physical exercise or conditioning for subjects
☐ Deception of subjects
☐ Subjects under 14 years of age and(or) ☐ Subjects 14-17 years of age
☐ Subjects in institutions
☐ Research must be approved by another institution or agency

5. ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.

☐ Signed informed consent will be obtained.
☐ Modified informed consent will be obtained.

6.

	Month	Day	Year
Anticipated date on which subjects will be first contacted:	Jan.	26	1981
Anticipated date for last contact with subjects:	May	22	1981

7. If Applicable: Anticipated date on which audio or visual tapes will be erased and(or) identifiers will be removed from completed survey instruments: Aug. (Month) 31 (Day) 1981 (Year)

8.

Signature of Head or Chairperson	Date	Department or Administrative Unit
Roger Volker	1/12/81	

9. Decision of the University Committee on the Use of Human Subjects in Research:

☒ Project approved ☐ Project not approved ☐ No action required

George G. Karas 2/2/81 GGKaras